



TV-FM-AM PHONO COMBINATION SEE PAGE 19

1949 Catalog No. 89

## *Lafayette-Concord Radio*

3 MAIL ORDER CENTERS: CHICAGO 7, NEW YORK 13, ATLANTA 3

7 CONVENIENT STORES—

901 W. JACKSON BLVD., CHICAGO  
229 W. MADISON STREET, CHICAGO  
265 PEACHTREE STREET, ATLANTA

100 SIXTH AVENUE, NEW YORK  
542 E. FORDHAM ROAD, BRONX  
24 CENTRAL AVENUE, NEWARK  
110 FEDERAL STREET, BOSTON

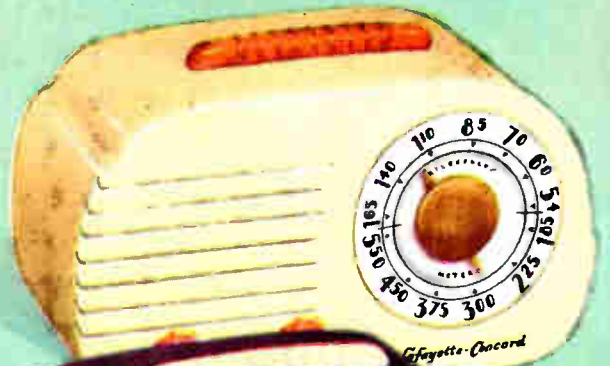
28 YEARS OF GUARANTEED RADIO RELIABILITY



① 26.95 up



② 24.95



③ 13.95 up



④ 22.95 up



⑤ 24.95

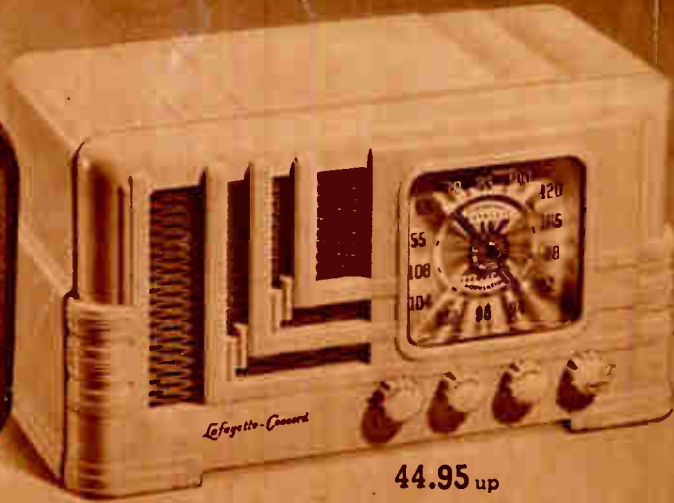


⑥ 24.95 up





37.95 up



44.95 up

## LAFAYETTE-CONCORD FM-AM table radios—popular-priced

NOW ENJOY IMPROVED STANDARD BROADCASTS PLUS STATIC-FREE FM

### Outstanding Value in an FM-AM Superhet

Unbelievable but true—FM within the reach of all. Here is true console tone FM and glorious high fidelity AM reception—all in a streamlined plastic table model case. Latest design superhet employs separate RF and IF circuits for FM and AM. Alnico V PM speaker assures quality reproduction of 2 watts audio output. Built-in loop antenna for AM and built-in FM dipole antenna provides ample pickup. Tubes used: 3—6BJ6, 2—12BE6, 12AL5, 12AT6, 50L6 plus selenium rectifier. 12" x 8" x 9". Wt. 10 $\frac{3}{4}$  lbs.

1N805—Brown plastic, each, in lots of 3.....	37.95
Each, Singly .....	39.95
1N806—Ivory plastic, each, in lots of 3.....	39.95
Each, Singly .....	41.95

### Console-Quality in an FM-AM Table Model

Engineered with console care . . . from new noise reducing "Sensitive Tone" RF stage to large 6" Alnico V PM speaker. New ratio detector FM circuit provides static-free listening pleasure. FM band 88-108 MC, AM band 536-1680 KC. Separate built-in antennas for FM and AM reception. Automatic volume control on FM and AM, continuously variable tone control, 14-1 reduction drive tuning. Tubes: 6BE6, 3-6BA6, 6AL5, 25L6, 25Z6 rectifier and 1-ballast. 14 $\frac{1}{2}$ " x 9 $\frac{3}{8}$ " x 7 $\frac{1}{4}$ ". Weight 13 lbs.

1N803—Brown Plastic, each, in lots of 3.....	44.95
Each, Singly.....	47.95
1N804—Ivory Plastic, each, in lots of 3.....	47.95
Each, Singly.....	49.95

## LAFAYETTE-CONCORD portables, table radios—shown at left

TABLE MODELS PLAY AT HOME, SHOP, OFFICE . . . PORTABLES EVERYWHERE

### New Executive Clock-Radio

1. The ideal combination for those who demand utility and beauty. A fine electric clock and radio in one beautiful modern case. Its gracious simplicity harmonizes with any room at home or at the office. The clock is equipped with a self-starting efficient synchronous motor. Full sweep second hand and  $\frac{3}{4}$ " numerals show exact time at a glance. The radio employs a newly designed superheterodyne circuit with Alnico V PM dynamic speaker for top quality output. Built-in loop antenna. Tubes used: 12BA6, 12BE6, 12AT6, 50B5 plus 35W4 rectifier. Size: 12 $\frac{1}{2}$ " x 8 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " deep. Shpg. wt. 9 lbs.

1N520—Walnut. 1N519—Mahogany.	
Each, in lots of 3.....	26.95
Each, Singly .....	27.95

### "Streamliner" AC-DC Table Model

4. New, sensational modern superheterodyne table top receiver in streamlined gleaming plastic cabinet. A colorful extra for the bedroom, playroom, or kitchen. High efficiency superheterodyne circuit Alnico V PM speaker assures excellent frequency response and tone quality. Built-in loop antenna assures peak performance in most localities without outside or trailing wire antennas. Automatic volume control prevents fading and blasting. Tubes used: 12BE6, 12AT6, 2—12BA6, 35B5 plus 35W4 rectifier. Size: 10 $\frac{3}{4}$ " x 6 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " deep. Shpg. wt. 8 lbs.

1N612—Maroon and Alabaster.	
1N613—Alabaster and Red.	
Each, in lots of 3.....	22.95
Each, Singly .....	24.95

### 3-Way Personal Portable

2. It's small . . . it's light and handy to carry . . . and it's packed with "Big Set" features. Take this compact set anywhere. No fuss—no bother—no outside aerials needed—no batteries to connect . . . just 100 percent pleasure. The amazing RCA and Hazeltine licensed improved circuit uses 1R5, 1T4, 1S5, 3Q4 plus selenium rectifier. Three of these tubes serve a dual function . . . which means you get extra power, extra efficiency from fewer tubes. Housed in a smartly styled, colorful, unbreakable plastic case, with built-in loop antenna. Size: 8 $\frac{1}{2}$ " x 4 $\frac{3}{8}$ " x 3 $\frac{7}{8}$ " deep. Shpg. wt. 7 lbs. with batteries. Available in Ivory, Maroon, Beige or Black—please specify color.

1N408—Less batteries .....	24.95
20N19878—Battery kit, for above..	1.84

### New! Aluminum 3-Way Portable

5. Take your entertainment with you wherever you go. You'll get perfect reception wherever you are—on 117 volt AC-DC or on self-contained batteries. Hear your favorite programs and music on the beach, at picnics, camping trips, or in your own back yard. Powerful, new superheterodyne circuit and efficient Alnico V PM dynamic speaker assure more than ample output with excellent tone quality. Housed in attractive, two-tone aluminum case designed to withstand the rugged usage given a portable radio. Tubes used: 1R5, 1T4, 1S5, 3S4 plus selenium rectifier. Size: 8" x 5" x 4" deep. Available in Red, Green, Blue or Gold. Please specify color.

1N415—Shpg. wt. 7 lbs.....	24.95
20N19883—Battery Kit for above..	2.04

### "Honeycomb" AC-DC Table Model

3. Striking appearance and top quality performance make this the radio buy of the year. Attractive modern cabinet design and perfected superheterodyne circuit make it ideal as the radio of the house, or as an extra for the bedroom or playroom. Efficient superheterodyne circuit combines good sensitivity and excellent tone quality at an output of two watts. Large, easy-to-read slide-rule dial. Tubes used: 12SA7, 12SG7, 12SQ7, 50L6 plus 35Z5 rectifier. Highly polished plastic cabinet has new and modern lines. 10 $\frac{1}{2}$ " x 6 $\frac{1}{2}$ " x 7" Wt. 8 lbs.

1N521—Walnut, each, lots of 3....	13.95
Each, Singly .....	14.95
1N522—Ivory, each, lots of 3....	14.95
Each, Singly .....	15.95

### "Vagabond" 3-Way Portable

6. There's a real treat in store for you when you first hear this beautiful little "console tone" portable. Just flip the lid open and it begins to play. Have the same fine performance at home or at the office on 117 volt AC-DC or on hikes, picnics, camping trips or at the beach on self-contained batteries. Pleasing tone and ample power assured by compact superheterodyne circuit and Alnico V PM speaker. Tubes used: 1R5, 1S5, 3Q4, 1T4 plus selenium rectifier. Metal case with plastic covers, 6 $\frac{1}{2}$ " x 4 $\frac{3}{8}$ " x 3 $\frac{3}{4}$ ". Green, Ivory, Maroon, or Red. State color. Shpg. wt. 3 $\frac{1}{2}$  lbs.

1N406—Each, in lots of 3.....	24.95
Each, Singly .....	26.95
20N19884—Battery Kit for above..	1.78



20.95 up



9.95 up

## OUTSTANDING VALUES—full-size, low-cost table model radios

### POWERFUL, CLEAR-TONE AC-DC SUPERHETS IN HANDSOME CABINETS

#### Portable Easy-to-Carry Table Model

Not a midget—but a full-size, post-war engineered table model AC-DC radio with console tone! Use it as the main set in your home, as the "extra" radio for bedroom or den, or take it with you when you go to the shop or office.

**MODERN SUPERHET** is extremely sensitive and selective with exceptional tone and volume on entire broadcast band. Covers 540 to 1600 KC on full-view illuminated airplane type dial with large gold numerals and double pointer. Built-in loop antenna eliminates outdoor aerial and trailing wires. Continuously variable tone control allows you to adjust tonal response from deep bass to clear, high treble. 5-inch PM speaker is efficiently baffled to give vibrant, sparkling sound. Shielded filter choke and output transformer. For 117 volts AC or DC. Licensed by RCA and Hazeltine Corp. Tubes used: 12SA7, 12SQ7, two 12SK7, 35L6, 35Z5 rectifier.

**SAFETY PROVEN**—Underwriters Laboratory listed, approved by RMA Engineering Institute. Rear of cabinet is entirely enclosed, bottom covered with heavy metal plate. Felt gliders protect furniture. Handy two-tone handle. 11¾" long, 7½" high, 6½" deep. Shipping weight 10 pounds.

1N614—Brown Plastic Cabinet. Each, lots of 3.....	20.95
Each, Singly .....	21.95
1N615—Ivory Plastic Cabinet. Each, lots of 3.....	21.95
Each, Singly .....	22.95
1N616—Walnut Wood Cabinet. Each, lots of 3.....	21.95
Each, Singly .....	22.95

#### LAFAYETTE-CONCORD Economy Model

Lafayette-Concord again brings you the days of the "Under \$10.00 radio." And what a radio! Not a midget or half-built affair, but a full-size table model superheterodyne radio with beam power output in a handsome plastic cabinet.

Here is the answer to your family's differences over radio programs—every person can now have his own personal radio, tune in his own particular favorites. It's the perfect solution to problems for birthdays, weddings, anniversaries, Christmas and other occasions too. What a pleasant surprise when your friends receive not just another gift, but a modern, useful receiver that can be played anywhere in the house.

**BEAM POWER OUTPUT** superheterodyne radio circuit is licensed by Radio Corporation of America and Hazeltine Electronics Corporation. Built-in loop antenna eliminates outdoor antennas and messy, trailing wires . . . makes the set easily moved from one room to another (connection provided for external aerial should one be desired). Huge 6½-inch slide-rule dial has large ivory numerals from 540 to 1650 KC. Hi-ratio drive makes tuning easier, faster on the entire broadcast band. Two-gang tuning condenser. The full 5-inch PM speaker combines with the Beam Power Output to give room filling volume on all local stations. Operates on 105-125 volts, 50-60 cycles AC or 105-125 DC. Tubes used: 12SA7, 12SQ7, 50L6 and 25Z5 rectifier. Smooth plastic cabinet, 10" long, 7¼" high, 6½" deep. Shipping weight 9 pounds.

1N413—Walnut Plastic Ea., lots/3, 9.95....	Each, Singly, 10.95
1N414—Ivory Plastic. Ea., lots/3, 11.95....	Each, Singly, 12.95

## LAFAYETTE-CONCORD SPECIAL

### TABLE MODEL—CONSOLE FEATURES

#### Variable Tone Control . . . Large 6-inch Speaker

Now—in a low-priced table model radio—you can have the perfection of radio reception usually found only in large, expensive console sets. Check these outstanding features—high undistorted output—three watts for room-filling volume . . . variable tone control—deep-throated bass to clear-toned treble . . . 6-inch speaker—reproduces with sparkling clarity . . . built-in loop antenna—eliminates outside aerials.

**SUPERHETERODYNE CIRCUIT**—Licensed by RCA. Receives standard American broadcast and police calls on 540-1700 KC slide-rule dial. Uses: 6SA7, 6SF7, 6SL7, two 25L6 and two 25Z6 tubes. Push-pull output and separate power supplies for output and driver stages provide utmost tone quality and performance. Inverse feed-back eliminates hum and distortion. For 105-125 volts AC or DC. Exquisite plastic cabinet, 12⅞" x 9" x 8⅝". Shpg. wt. 12 lbs.

1N708—Each, in lots of 3.....	20.95
Each, Singly .....	22.45







34.50



24.95



27.50 up

## LAFAYETTE standard broadcast and short wave table radios

### MODERN SUPERHETS OFFER CLEAR DOMESTIC AND FOREIGN RECEPTION

#### Powerful Three-Band AC Superhet

Here's a whole world of radio thrills and enjoyment for you! Bring the far-away places into your home. Paris—London—Shanghai—Moscow—Rio de Janeiro become your next door neighbors. This powerful new 3-band superheterodyne receiver also assures top quality reception of domestic broadcasts.

**POWERFUL SUPERHETERODYNE** circuit for clear, perfect reception. Slide-rule dial for easy, quick, and accurate tuning—no jamming of stations, no double reception at low frequency end of band. Broadcast tuning from 535 to 1720 KC, short wave bands from 2.2 to 7.2 MC and 6.9 to 23.5 MC. Gets everything! Domestic, Police, Foreign. 5-inch PM speaker with large Alnico V magnet for superb tonal fidelity. Full 2 watts output. Full range volume control. For operation on 110-230 volts, 50-60 cycles AC. Tubes used: 6BE6, 6BA6, 6AT6, 6AQ5 plus 6X4 rectifier.

**DISTINCTIVE CABINET** is exceptionally large, with plenty of baffle for superior tone. Styled in smart plastic—in a soft grained walnut finish. Size: 11½" wide, 8½" high, 6½" deep.

1N504—Shpg. wt. 12 lbs.....**34.50**

#### New Two-Band AC-DC Superhet

Standard Broadcast and Foreign Short Wave reception in a super-efficient two-gang Superheterodyne circuit licensed by RCA make this one of the year's best buys for those short wave fans who desire top performance at low price. Up-to-the-minute modern Walnut veneer cabinet "fits in"—harmonizes with kitchen, living room, bedroom, office furnishings.

**NEW DESIGN**—Years ahead of comparable priced sets—use of latest engineering developments and new miniature tubes assures excellent reception of even the weakest stations. Standard band coverage from 535-1720 KC and Shortwave band from 5.97-24.1 MC. 5-inch PM speaker set in Ivory grille. Dark Brown knobs. Tone control for deep bass or clear treble. Built-in loop antenna eliminates trailing wires. 5½" illuminated slide-rule dial has 9 to 1 ratio for fine tuning.

**MINIATURE TUBES:** 12BA6 RF Amplifier, 12BE6 Converter, 12AT6 Det., 1st Amp., 50B5 Beam Power Amplifier, plus 35W4 rectifier. For use on 105-125 volts, 25-60 cycles AC and DC. Walnut veneer cabinet measures 11¾" x 8½" x 6½".

1N524—Shpg. wt. 10 lbs.....**24.95**

#### 2 and 3 Band AC-DC Superhets

Enjoy high fidelity world wide radio reception with this newly designed three band superheterodyne. Complete coverage of standard broadcast band, intermediate shortwave band and foreign short wave band. Broadcast frequency range is 540 to 1650 KC, intermediate frequency is 2.3 to 7.5 MC and Foreign frequency is 7.25 to 22.3 MC. Powerful superheterodyne circuit and efficient PM speaker provide peak performance on all bands. Automatic volume control eliminates blasting and fading. Tubes used: 12SG7, 12SA7, 12SK7, 12SQ7, 35L6 plus 35Z5 rectifier. Housed in attractive plastic cabinet, 11½" wide, 7⅞" high and 8¼" deep. Large easy to read, illuminated slide rule dial. Shpg. wt. 10 lbs.

1N621—Brown Plastic .....**33.95**

1N622—Ivory Plastic .....**34.95**

Two Band Receiver similar to above. Covers standard broadcast band 540 to 1650 kilocycles and foreign broadcast band 7.25 to 22.3 megacycles.

1N617—Brown Plastic .....**27.50**

1N618—Ivory Plastic .....**29.50**

## TWO-BAND BATTERY RADIO

### BROADCAST AND SHORT WAVE

#### For Farms—Summer Cottages—Lodges—Boats

Four-tube battery-operated superhet designed for broadcast and short wave reception. Ideal for farms, summer cottages, lodges, and boats. The tuning range is 540 to 1650 KC broadcast band and 5.8 to 18.3 MC shortwave. Operates from a standard Burgess 17GD60 or equivalent, one-thousand hour battery (listed below), which provides more than a year of listening pleasure under normal use of two to three hours per day. The circuit is a modern superheterodyne employing eight tuned circuits for maximum sensitivity and selectivity. Automatic volume control and beam power output system. Tubes used: 3Q4 power amplifier, 1S5 detector, AVC and 1st audio amplifier, 1T4 IF amplifier and 1R5 converter. Handsome plastic cabinet measures 11½" x 7⅞" x 8¼". Shipping weight 10 pounds.

1N619—Brown Plastic (Less Battery).....**26.50**

1N620—Ivory Plastic (Less Battery).....**27.95**

20N20619—Battery Pack. Shpg. wt. 22 lbs.....**5.62**





51.50 up



41.50 up



25.95 up

## LAFAYETTE-CONCORD table model phono-radio combinations

### MODERN SUPERHETS WITH SINGLE OR AUTOMATIC RECORD PLAYERS

#### Superhet with Automatic Changer

Enjoy complete home entertainment—from records—from radio. This beautifully styled table-top combination plays records automatically—and brings you the finest in radio enjoyment.

**THE PHONOGRAPH** has automatic record changer . . . plays twelve 10-inch or ten 12-inch records at one loading for 60 minutes of recorded entertainment. With permanent Fidelitone needle.

**THE RADIO**—powerful superhet with latest developments in radio engineering. Permeability tuned IF transformers, continuously variable tone control. Alnico V PM speaker reproduces records and radio programs with room-filling volume. Built-in loop antenna eliminates outside aerials. Illuminated slide rule dial. Tubes used: 12SA7, 12SQ7, 12SK7, 50L6 plus 35Z5 rect. For operation on 110-120 volt, 60 cycle AC only.

**THE CABINET**—A masterpiece of simplicity in richly-grained Mahogany veneer—will add a touch of luxury to any room. 16¼" wide, 10" high, 18" deep.

1N525—Wt. 40 lbs. Ea. Lots/3 . . . 51.50  
Singly, Each . . . . . 53.50

#### Special Automatic Radio-Phono

High fidelity radio reception—automatic record reproduction—table top cabinet beauty and convenience. Here is complete listening pleasure for the entire family. Clear-tone reception of standard broadcast band—true high-fidelity reproduction of your favorite records.

**THE PHONOGRAPH** automatically plays ten 12-inch records or twelve 10-inch records. Simplified single lever control. Lightweight crystal tone arm prevents excessive record wear.

**THE RADIO** employs latest in radio circuit developments to assure efficient operation. Untuned RF stage provides extra sensitivity and tuning stability. Alnico V PM speaker for distortion-free reproduction of voice and music. Continuously variable tone control. Built-in loop antenna. Super-sensitive superhet circuit uses: 2-12SK7GT, 12SA7GT, 12SQ7GT, 35L5GT plus 35Z5 rectifier. The cabinet of richly-grained Mahogany veneer will add beauty to any room. 18" x 9½" x 18½". 105-125 V. 60 cycle AC

1N624—Wt. 35 lb. Ea. Lots of 3 . . . 41.50  
Singly, Each . . . . . 43.75

#### Economy-Priced Table-Model

Although compact in size, this set gives you the operating convenience and quality construction you expect in combinations selling at far higher prices. Radio embodies new design features to bring in stations with exciting clarity and volume.

**THE PHONOGRAPH**—has zephyr-light tone arm equipped with shock-mounted Astatic crystal cartridge and semi-permanent type Fidelitone needle.

**THE RADIO** is a modern, efficient superhet with two stages of IF and condenser tuning to bring more stations. High flux density speaker features new Alnico V permanent magnet. Continuously variable tone control and greater audio output give sparkling reproduction of both records and radio programs. For 105-125 volts, 60 cycles, AC operation only. Tubes used: 12SA7, 12SQ7, 50L6 plus 35Z5 rectifier.

**THE CABINET**—Attractive modern design, with beautiful Walnut finish hand-rubbed to high lustre. 8" x 11" x 11½".

1N417—Wt. 15 lbs. Ea. lots/3 . . . 25.95  
Singly, each . . . . . 26.95

## NEW PORTABLE RADIO-PHONOGRAPH

### Latest Design Silent Automatic Record Changer

Now you can take your record changer and radio everywhere . . . play records on the fast, silent automatic record changer . . . enjoy radio programs even though you may be far from home. Here is a portable phonograph that will give you years of listening pleasure—in a sturdy, easy-to-carry case that will look brand-new after years of hard use.

**THE PHONOGRAPH**—has latest design automatic record changer that plays twelve 10-inch or ten 12-inch records for more than 60 minutes of uninterrupted recorded entertainment at one loading. Single button controls all actions of On-Off, Reject, Automatic and Manual. "Manual Operation" allows you to play all sizes of transcriptions, home recordings and records without lead-in grooves right to the center pin. Feather-light tone arm has noise-reducing crystal cartridge and permanent Fidelitone needle good for thousands of plays. Extreme lightness of the tone arm makes your records last years longer. Fool-proof action—lifting tone-arm in middle of changing cycle will not cause a jam.

**THE RADIO**—stable condenser tuning. Built-in antenna. Illuminated full-vision dial has hi-ratio for fine tuning. 5-inch PM speaker. Automatic volume control prevents blasting or fading. Tone control adjusts to your individual taste. For 105-125 volts, 60 cycle AC only. Tubes used; 12SQ7, 12SA7, 12SK7, 50L6, plus 35Z5 half-wave rectifier.

**THE PORTABLE CABINET**—Sturdy wood case covered with two-tone Tan simulated leather with Ivory trim. Plastic handle. Wt. 30 lbs.

1N526—Each, in lots of 3 . . . . . 44.95  
Each, singly . . . . . 47.50







33.45 up



28.95 up

## LAFAYETTE-CONCORD auto radio, new three-way portable

### INSTALL-IT-YOURSELF AUTO RECEIVER . . . PLAY-EVERYWHERE PORTABLE

#### Single-Unit Universal Auto Receiver

Hear your favorite programs as you drive in city or country. This new radio features single unit construction for easy universal mounting in any automobile—any make, model or year! **SUPERIOR TONE**—scientifically designed audio system plus carefully matched PM speaker for sparkling reproduction.

**SUPERHETERODYNE CIRCUIT**—more than ample volume and excellent selectivity from the modern two-gang condenser tuned 5-tube (plus rectifier) circuit. Licensed by RCA and Hazeltine Corporation. Tuning range covers entire broadcast band from 540 to 1650 KC. Illuminated slide rule dial has nonbreakable face and is mounted at an angle for easiest and fastest manipulation of the controls. Automatic volume control assures you constant listening level with no fading or blasting. A simple trimmer adjustment matches the set to any auto antenna for peak efficiency. Two miniature IF stages.

**MINIATURE TUBES**—lower battery drain, more power, smaller set. Uses: 6A5S, 6BE6, two 6BA6, 6AT6, and 6X4 rectifier.

**INSTALL IT YOURSELF!** Just attach the set to your instrument panel and dash with three bolts (supplied), make a simple ammeter connection and plug in the aerial to complete the installation. Uses any standard auto antenna (not supplied). Complete with all tubes, mounting accessories, generator condensers, distributor suppressor, bonding braid, and full instructions for installation and use. Tan Hammerloid finish with Maroon figures on White tuning scale. 5½" x 4½" x 12½".

1N623—Shpg. wt. 9½ lbs. Each, in lots of 3..... 33.45  
Each, singly..... 34.95

#### New Three-Way Portable—Battery, AC-DC

Lightweight, easy-to-carry portable radio plays everywhere—outdoors, in the home, at the office, or shop. Operates equally well on self-contained batteries, regular 110 volt AC house current, and 110 or 115 volt DC shop or office current.

**THE RADIO** is a brand-new superhet with tuned RF stage for maximum sensitivity and selectivity. With built-in loop antenna, it enables you to enjoy your favorite broadcast programs everywhere! Uses 7 tuned circuits and three-gang condenser for reception comparable to fine home radios. Beam power output teams up with automatic volume control and 5-inch Alnico V PM speaker to give you brilliant, sparkling reception without fading or blasting.

**PERMEABILITY-TUNED** IF transformers and oscillator coil reduce the size to a minimum, and weight to an airy lightness—weight just 9 pounds including batteries. The 5¼-inch slide-rule dial is equipped with a reduction of 10 to 1 for fast tuning of all broadcast stations from 538 to 1650 KC. Low drain, instant heating tubes. Uses: 2—1T4, 1—1R5, 1—1S5, 1—3Q5, plus 11723 rectifier when used on AC. With tubes.

**PORTABLE CASE** of sturdy, first-grade plywood, covered in alligator-grain simulated leather. Leather handle. Drop front protects speaker, dial when not in use. 7" x 10½" x 12¾".

1N626—Less Batteries. Shpg. wt. 9 lbs.  
Each, in lots of 3..... 28.95  
Each, singly..... 29.95  
Battery Kit for portable radio 1N626 above.  
20N18880—Shipping weight 2 lbs..... 3.92

## CHAIRSIDE PHONO-RADIO

### LAFAYETTE-CONCORD Consolelette Value

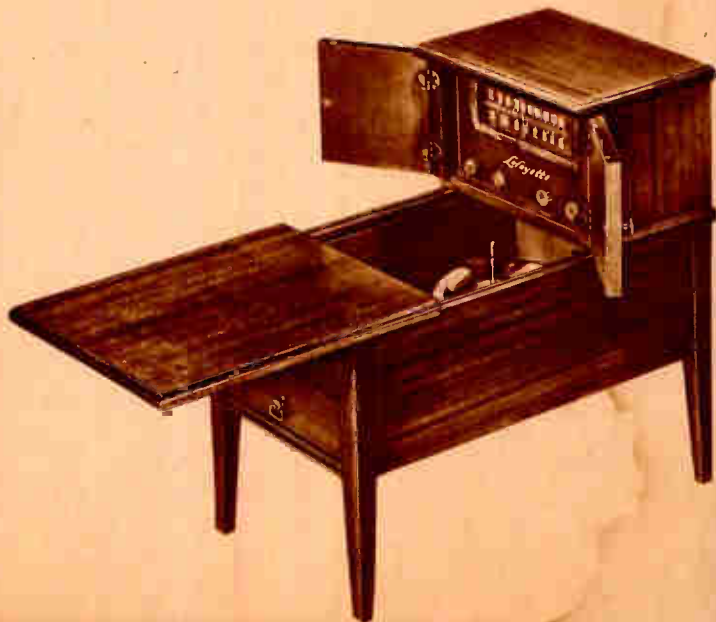
Inspired styling, thrilling performance, low price make this automatic phono-radio the year's best value!

**THE CHAIRSIDE CABINET** of luxurious mahogany blends perfectly into both modern and traditional surroundings. The extra convenience of the unusual slide-top adds to your enjoyment of the best in recorded and radio entertainment. Size: 27" x 26¾" x 15¼".

**THE RADIO**—a powerful superheterodyne with four watts of undistorted output for radio reception or record reproduction. Tunes broadcast band 550 to 1700 KC. Illuminated slide-rule dial. Bass boost circuit. Large PM dynamic speaker with Alnico magnet assures fidelity of reproduction. Variable tone control for records. Tubes used: 6SA7, 6SF7, 6SL7, two 25L6, and two 25Z6 rectifiers. For 105-125 V, 60 cycles AC.

**THE RECORD CHANGER** is completely automatic, plays ten 12-inch or twelve 10-inch records at one loading, handles records with cushioned ease—gently, safely. Lightweight tone arm and the latest in crystal pickups with new "Floating Point" needle reduce surface noise, record wear. Allows for manual playing of transcriptions and home recordings.

1N709—Mahogany. Shpg. wt. 63 lbs..... 99.50  
1N710—Blond Mahogany..... 109.50



# LAFAYETTE AM RADIO PHONO

## SPECIAL LOW-COST CONSOLE

### Luxurious Tone Quality, Cabinet Design

Enthusiastic music lovers everywhere have long been waiting for a truly modern, superb performing low-priced radio-phonograph combination. Now it's here—in a beautiful hand-rubbed cabinet with radio and record reproduction rivaled only by the most expensive sets.

**THE PERIOD CABINET:** Here is truly a fine piece of furniture—built from choice matched walnut veneers, hand-rubbed to bring out the natural grain. Exceptionally roomy record storage compartment comfortably holds plenty of records. Top lifts for easy access to radio and phono compartments, records easily stacked—no groping in dark.

**AUTOMATIC RECORD CHANGER:** Simple and foolproof for quick and smooth operation. Plays ten 12-inch records or twelve 10-inch records with the door closed. Crystal pickup, self-starting turntable, featherlight tone arm. Complete with floating point semi-permanent needle.

**THE RADIO:** Powerful superheterodyne circuit with automatic volume control eliminates fading and blasting. Continuously variable tone control provides deep-throated bass to clear-tone treble. Undistorted three watts output from push-pull audio circuit brings glorious realism to recorded music and radio reception. Large 8" speaker with Alnico V magnet provides true reproduction throughout the listening range. Built-in loop antenna.

Additional expensive set features include: power line filter, completely shielded chassis, shock-mounted variable condenser, Hi-Cap filter condensers and smooth drive tuning. Tubes used: 1-6SA7, 1-6SF7, 1-6SL7, 2-25L6 plus 2-25Z6 rectifiers. Size 27½" wide, 32½" high, 16" deep. For operation on 105-120 volt, 60 cycle AC only.

1N704—Shipping weight 74 lbs..... **89.00**



# LAFAYETTE FM-AM radio-phonograph combinations—shown at right

## MAGNIFICENT CONSOLES . . . SLIDE-OUT AUTOMATIC RECORD CHANGERS

### Flawless Tone, 7 Tubes plus Rectifier

1. In this fine radio-phonograph combination Lafayette adds a new achievement to its long history of creating fine instruments. Here is real beauty in appearance and performance. The rare workmanship and design of this luxurious "Regency" styled mahogany cabinet will add everlasting richness and beauty to your home. You'll thrill to the superb static-free FM (Frequency Modulation) reception . . . grand clear-tone reception of standard AM broadcasts . . . outstanding automatic record reproduction. Only Lafayette's unparalleled resources could make this glorious FM-AM Radio and Automatic Phonograph Combination a reality at this outstanding low dollar-saving price.

**THE REGENCY CABINET:** Truly an outstanding achievement of furniture craftsmanship. Lustrous hand-rubbed mahogany finish to enhance the natural beauty of the fine wood grain. Readily accessible "Slide-away" drawer for Automatic Record Changer, slides easily at fingertip pressure. Convenient storage space for your ten and twelve inch records and albums. Attractive burnished brass hardware add an extra touch of luxury.

**AUTOMATIC PHONOGRAPH:** Here's your front row seat for one full hour of your favorite records. Automatically plays and smoothly changes 12 ten-inch or 10 twelve-inch records at one setting. Lightweight crystal tone arm with semi-permanent type "Floating Point" needle rides gently to assure longer record life while reproducing every tone with unusually high fidelity and brilliance. Automatically rejects record at any point.

**FM-AM RADIO:** A powerful superheterodyne equipped with a large 8-inch Alnico V PM dynamic speaker for superb high fidelity reproduction of records and radio broadcasts. Automatic volume control eliminates fading and blasting. Built-in loop antenna for AM reception and folded dipole for FM broadcasts eliminates the old-fashioned trailing wires and makes outside antennae unnecessary. Complete coverage of new FM band from 88 to 108 MC and standard broadcast bands from 540 to 1600 KC. Uses three dual purpose tubes to achieve the performance of ten tubes. Tubes used: 3—12BA6, 1—12BE6, 1—6AQ6, 1—12H6, 1—50B5, plus a selenium rectifier. Cabinet dimensions: 33½" wide, 34¼" high, 16½" deep. For 105-120 volt, 60 cycles, AC only.

1N711—Shipping weight 90 lbs..... **139.50**

### Masterpiece—11 Tubes plus Rectifier

2. Everything you want in a fine Radio-Phonograph—static-free FM, clear-tone standard broadcasts, plus superb record reproduction—is yours in this magnificent instrument. Now you have the opportunity to own and enjoy this unparalleled combination . . . at a price that makes it a miracle value. Here is true luxury—a masterpiece in both superb listening pleasure and exquisite cabinet design—at an unprecedented low price!

**DISTINGUISHED CABINET:** A luxurious Regency styled mahogany console. Lustrous hand-rubbed finish adds richness and beauty to any home. Convenient "slide-away" drawer for automatic record changer, with handsome burnished brass hardware. Cabinet has handy storage space for plenty of ten and twelve inch records. No need for extra record cabinets unless your collection is unusually extensive.

**AUTOMATIC PHONOGRAPH:** Precision-built record changer plays a full hour of your favorite recorded entertainment at one loading. Automatically plays and smoothly changes twelve 10" records or ten 12" records. Semi-permanent "Floating Point" needle and featherweight crystal tone arm rides gently to assure longer record life, yet it reproduces every tone impressed into your records with utmost clarity.

**ADVANCED FM AND AM RECEPTION:** Receives the new high-fidelity FM (Frequency Modulation) stations—88 to 108 MC as well as standard broadcasts—540 to 1600 KC. Newest FM ratio detector circuit assures ease of tuning, low noise level, freedom from interference and ample gain for all applications. Built-in folded dipole antenna affords perfect FM reception without outdoor antenna if you are within 40 miles of an FM station. AM section is a powerful superheterodyne with 4.5 watts of undistorted push-pull audio power available for any application. Large 10" PM speaker for high fidelity reproduction of both recordings and radio broadcasts. Built-in loop antenna. Licensed under RCA, Hazeltine and Armstrong patents. Highly efficient circuit uses the latest type tubes: 6FA6, 6BE6, 6SA7, 6AL7, 6SH7, two 6SQ7, two 6SK7, two 6K6 and 5Y3 rectifier. For use on 105-125 volts 60 cycle AC only. Cabinet dimensions: 34" high, 34" wide, and 16" deep.

1N1200—Shipping weight 100 lbs..... **169.50**





1. LAFAYETTE FM-AM RADIO-PHONOGRAPH—7 TUBES PLUS RECTIFIER.....139.50



2. LAFAYETTE FM-AM RADIO-PHONOGRAPH—11 TUBES PLUS RECTIFIER.....169.50

# Lafayette-Concord

PRESENTS

## High Fidelity . . .



### . . . a new experience in sound

Enjoy, in the comfort and privacy of your own home, the throbbing drama of music, the boisterous release of comedy, the deep tension of melodrama—heightened by the artistry and engineering of High Fidelity. Years of research and experimentation have culminated in the newest of radio triumphs, aptly described as "Sound at its finest!" High Fidelity is as far beyond the ordinary concept of sound reproduction as the sound films were over silent pictures. Ncr is it mere realism; this new development provides instead greatly enriched realism; for sets with High Fidelity components attain a fidelity of tone and quality never even experienced by a studio audience. Now, for the first time, Lafayette-Concord presents its own version of this new adventure in sound with two new combinations custom-made for you—the "Sinfonetta" and the "Intermezzo." Rare blends of tone and body, designed to delight the eye as well as the ear, painstaking care is evident in every detail. The finest AM broadcast, FM (Frequency Modulation), International Short Wave and amateur station reception, as well as superb record reproduction free from needle noise are available—and all projected by High Fidelity! Each of these combinations comes ready for instant service—no adjustments necessary. You have only to plug into any socket, settle back in your easy chair, relax and prepare yourself for an entirely new experience in sound.

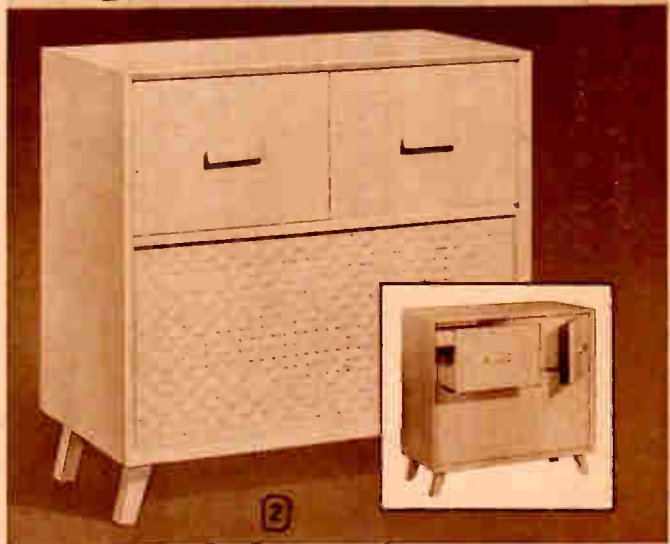
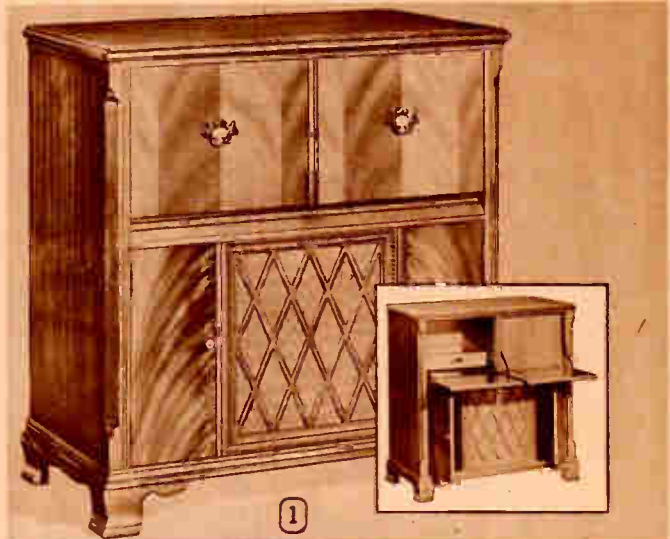
#### NINE PAGES OF HIGH FIDELITY UNITS

On this and the following eight pages, our skilled technicians offer two complete FM-AM Radio-Phono Console Combinations—custom-made for you, with your choice of cabinet and components. Select the period or modern cabinet in blond or mahogany to harmonize with your home—we will install the radio-phonograph parts you have chosen to go with it. For those who wish to build their own High Fidelity installations, we have included a complete assortment of the finest famous-name amplifiers, tuners, chassis, speakers, phono pickups, plus the renowned Jensen-Customode cabinets to enclose all parts. Every unit shown has been thoroughly tested by our engineering staff to insure you of perfect audio response.

#### Lafayette-Concord Custom-built Period Cabinet

Handsome, massive console cabinet designed to lend an air of gracious dignity to any room. Constructed with ample room to house any standard record-changer and radio chassis plus additional High Fidelity installations. Has a smooth-riding, slide-out record changer drawer concealed by a matching crotch door. Heavy baffle cut for 12" speaker on bottom section with swinging door type storage spaces for records on each side. Hand-rubbed to a beautiful high lustre piano finish. Cabinet dimensions: 37" high, 37" wide, and 18" deep. Will accommodate any standard radio chassis up to 9½"x16"x15".

- |   |        |        |
|---|--------|--------|
| 3N102—Mahogany. Shpg. wt. 92 lbs. . . . . | } Each | 120.00 |
| 3N105—Walnut. Shpg. wt. 92 lbs. . . . .   |        |        |
| 3N106—Blonde. Shpg. wt. 92 lbs. . . . .   |        |        |

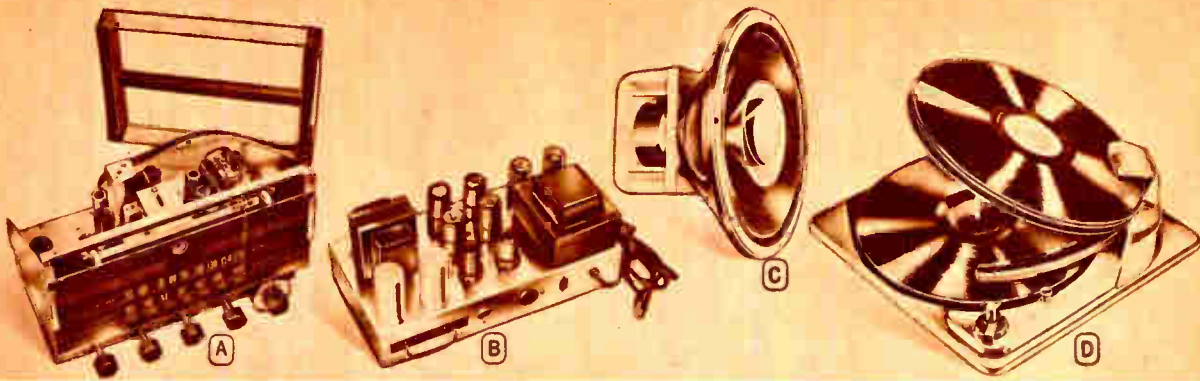


#### Lafayette-Concord Custom-built Modern Cabinet

Modern magnificence in an impressively-designed console cabinet constructed to house a record changer, radio chassis and accessories. Has all the fine features to be expected in a quality console. Record-changer partition slides out intact with door remaining upright. Lower section has a heavy baffle cut for a 12" speaker concealed behind an all-over meshwork pattern. Functional beauty with full sweeping lines—molded of selected hardwoods hand-rubbed to a lustrous sheen. Strikingly beveled molding and angular legs add to the distinctive styling. Cabinet size: 35" high, 36¼" wide, 17¾" deep. Will accommodate up to 9½" high, 16" wide, 13" deep chassis.

- |  |        |
|--|--------|
| 3N103—Bleached Mahogany. Shpg. wt. 85 lbs. . . . . | 179.50 |
| 3N107—Bleached Oak. Shpg. wt. 85 lbs. . . . .      | 199.50 |





## High Fidelity FM-AM Radio Phonograph Combinations

COMPLETE, READY TO OPERATE—CUSTOM BUILT WITH FAMOUS-NAME COMPONENTS

### The "Sinfonetta" Custom Installation in Period or Modern Cabinet

For the radio listener who loves perfect reproduction of music and drama, Lafayette-Concord offers the "Sinfonetta" FM-AM radio-phonograph combination. Custom-built into either the period or modern cabinet shown on page 10 are a high fidelity amplifier, a famous-make speaker, and a well known automatic record changer. Designed, developed and tested in our own laboratories, the "Sinfonetta" brings you high fidelity reception at a moderate price. If you were to purchase all the components separately, the cost would be greater than the complete, ready-to-operate, instrument offered you here!

**A. FM-AM TUNER** is made by a famous manufacturer and has two frequency ranges: FM, 88 to 108 mc; and AM, 540 to 1620 kc. Ease of tuning is assured by the large, indirectly illuminated slide-rule dial. Tuner is designed with separate r-f stages on both FM and AM. 2-6BA6 tubes are used for AM and FM r-f amplifier, 2-6BE6 tubes for AM converter and FM mixer stages, 1-6C4 for FM oscillator, 1-6SG7 AM-FM i-f amplifier, 1-6SH7 RM ratio detector driver, 1-6J5 AM detector, avc, 1-6AL5 FM ratio detector, 1-6SQ7 AM-FM first audio amplifier and 1-6U5 tuning indicator. The circuits are carefully engineered to insure stable, drift-free reception. Full range treble control and full range bass boost tone controls are provided, as well as automatic volume control. Built-in AM loop antenna and folded dipole for local FM reception. Terminals are provided for external aerials.

**B. HIGH FIDELITY AMPLIFIER.** The amplifier power supply chassis uses 2-6J5 tubes in a balanced phase inverter, push-pull circuit driving four 6V6 triodes in a parallel push-pull output circuit. 2-5Y3GT/G rectifier. High fidelity amplifier performance is assured through the use of an inverse feedback circuit.

**C. STEPHENS "TRUE-SONIC" MODEL P22FR 12" SPEAKER** is designed for "room presence" reproduction of both records and radio programs. Brings out the true beauty and quality of music with all its vibrant tones and overtones. Rugged, precise construction gives this speaker the fidelity needed for ideal FM reception.

**D. WEBSTER MODEL 256 RECORD CHANGER.** Newly designed dual speed record changer for playing new 33 1/3 rpm long-playing micro-groove records and standard 78 rpm records. Pushing button on pickup arm reverses cartridge for either micro-groove or standard needle, arm is automatically balanced to insure proper record pressure for either type. Automatically plays ten 12" or twelve 10" records. After last record has played the pickup arm returns to rest. Manual switch for playing home recordings. Installation as described above mounted in your choice of cabinet. For 105-125 volt 60 cycle AC operations.

1N102—Installed in Period Cabinet. Shpg. wt. 175 lbs. . . **369.50**

1N103—Installed in Modern Cabinet. Shpg. wt. 175 lbs. . . **399.50**

### The "Intermezzo" Custom Installation in Period or Modern Cabinet

Now you can have glorious Armstrong FM reception, powerful AM performance and flawless automatic record reproduction, all in one magnificent combination! Every feature that makes radio and phonograph listening a genuine pleasure is included for your enjoyment. Combination consists of an FM-AM tuner, matching high fidelity amplifier, perfect-tone 12" speaker, and the famous Webster automatic record changer. These components are installed by Lafayette-Concord's skilled technicians in either the period or modern cabinet shown on opposite page.

**A. FM-AM TUNER** has Automatic Frequency Control that gives you complete freedom from annoying FM receiver drift and eliminates need for a tuning indicator. Electronic correction "locks in" receiver to FM signal, which remains distortionless without adjustment. Five controls on chassis are: bass; on-off switch and volume control; AM-FM phono-television; tuning; and treble. Two AC power outlets supply amplifier and phono. Slide-rule dial is edge-lighted for fast, easy tuning. Frequency range: FM 88 to 108 mc; AM 540 to 1620 kc. Uses 3-6BA6 r-f and i-f amplifiers; 1-6BE6 converter; 2-6AU6 limiters; 1-6AL5 discriminator; 1-6J5 oscillator and reactance modulator; 1-6C4 audio amplifier; and 5Y3 rectifier. Chassis is finished in polished chromium, and is completely shock mounted.

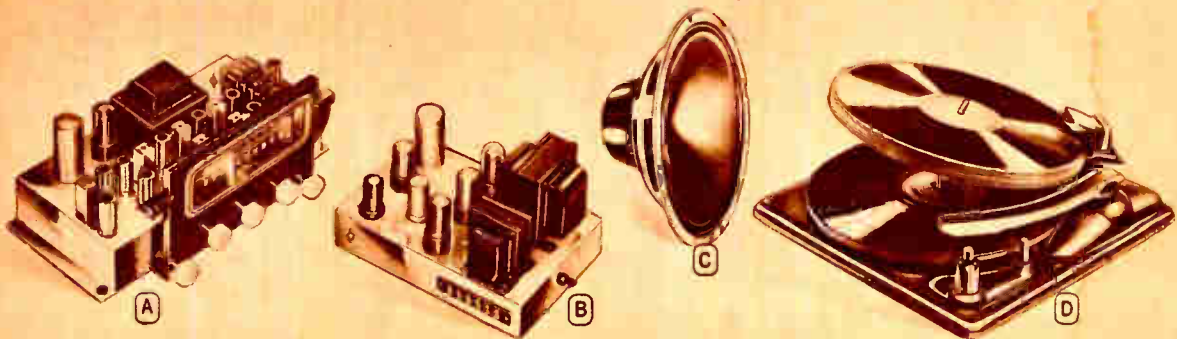
**B. HIGH FIDELITY AMPLIFIER** is designed to match the performance of tuner. Has normal rating of 10 watts undistorted output, 20 watts maximum output. Overall distortion less than 3%. Overall gain 70 db with extremely low hum level. Uses 1-6J5, 1-6SN7GT and 2-6V6 tubes in push-pull output circuit.

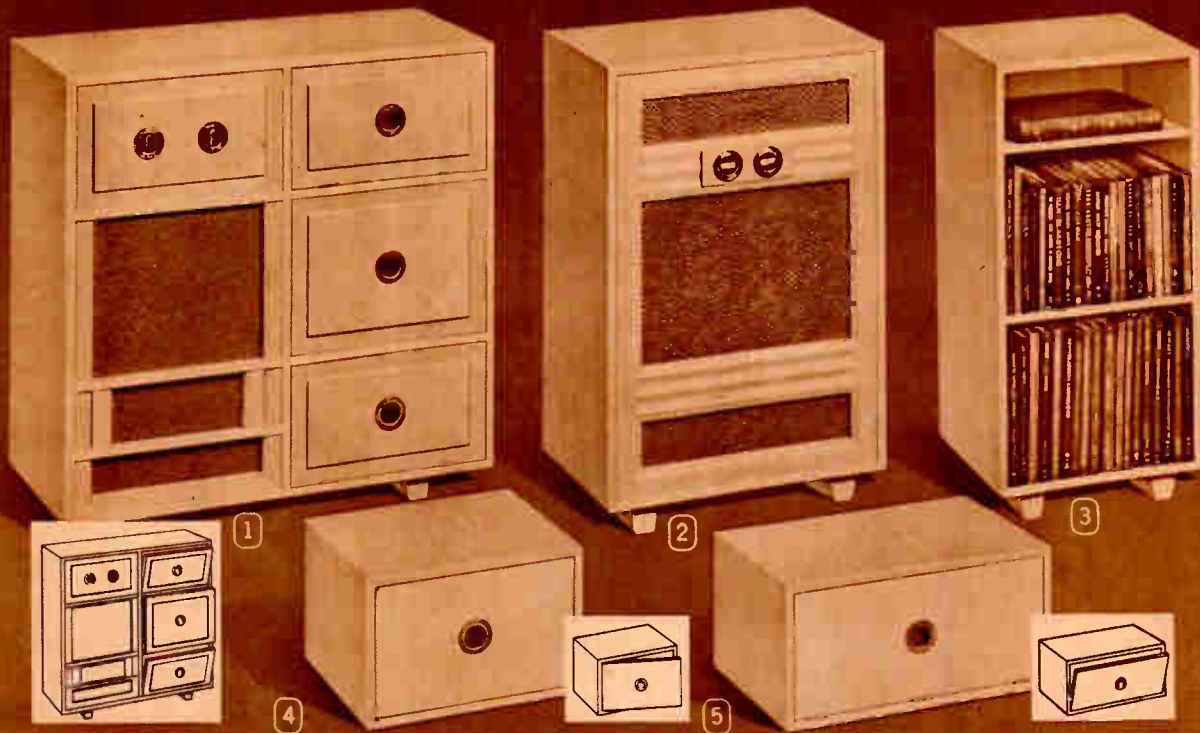
**C. GE S1201D 12" SPEAKER** incorporates the latest engineering developments in scientific tone reproduction. Aluminum-base voice coil provides higher wattage output, will not warp. Molded cone assures high fidelity and brilliant frequency response. Plated finish protected by new Lusteron treatment.

**D. WEBSTER 156-27 AUTOMATIC CHANGER.** Provides automatic playing of ten standard 12" or twelve 10" discs. Home recordings or "inside out" records up to 12" size may be played manually. Shuts off automatically after last record has played. Equipped with GE variable reluctance cartridge pickup, and a pre-amplifier. Light-as-a-feather low pressure pickup saves wear on your precious records. Heavy duty motor will stand up under continuous usage. Components operate on 105-125 volts, 60 cycles AC. (All components available for 50 cycles if specified).

1N104—Installed in Period Cabinet. Ship. wt. 165 lbs. . . **369.50**

1N105—Installed in Modern Cabinet. Ship. wt. 165 lbs. . . **399.50**





# Jensen Customode Cabinets for High Fidelity Installations

CREATE YOUR OWN—CHOOSE FROM HUNDREDS OF POSSIBLE COMBINATIONS

## Distinctive Imperial Console

1. Holds all equipment needed for a high fidelity radio-phonograph. Bevel-treatment and raised veneer-matched selected veneer panels lend sculptured feeling to the clean-lined design. Satin brass flush door pulls, backed by translucent dark green Plexiglas windows. Correctly proportioned Bass-Reflex enclosure assures excellent acoustics, may be used with any 15" speaker. Integral drawer type record-changer compartment accommodates intermix type changers. Two 17½" x 10" x 17" drop-door compartments for tuners, amplifiers. Console size: 37½" x 36" x 18". With base rails, less speaker controls shown at top left.  
**40N25771—Mahogany.**  
**40N25770—Blonde.**  
 Each.....189.00

## Small Utility Cabinet

4. Distinguished design in a small utility cabinet for housing tuners, amplifiers, record-changers, etc. Side-hinged door, removable plywood back with ventilation cut-outs, loose plywood veneer sub-panel. Inside dimensions: 10½" high, 16½" wide, 17" deep. Overall size: 12" x 18" x 18".  
**40N25772—Blonde.**  
**40N25773—Mahogany.**  
 Each.....28.50

## Bass Reflex Enclosure

2. Jensen Customode—the modern system of matched enclosures for housing radio, audio and video equipment, scores again with this Bass Reflex Reproducer Cabinet—offers a custom-built job at far less than the usual cost and permits the addition of equipment with the knowledge that additional enclosures will match your present installation in style and finish. Above cabinet designed for 15-inch speaker only. May be placed vertically or horizontally. Four concealed cut-outs with wood cover plates—may be left in place or removed when installing controls. Base rails included. Overall cabinet size: 36" x 24" x 18".  
**40N25768—Blonde.**  
**40N25769—Mahogany.**  
 Each.....67.75

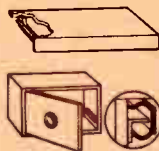
## Medium Size Utility Cabinet

5. Designed for housing larger equipment, communications receivers, small television sets, etc. Drop door style cabinet with removable plywood back, ventilation cut-out. Loose plywood veneer sub-panel. Inside dimensions: 10½" high, 21½" wide, 17" deep. Overall dimensions: 12" x 24" x 18".  
**40N25774—Blonde.**  
**40N25775—Mahogany.**  
 Each.....38.50

## Roomy Customode Record Cabinet

3. Holds 200 records in standard albums. Use vertically or horizontally. Fully enclosed flush back. Shelf width, inside, 16½". Shelf clearances: bottom shelves, 13½", top shelf, 6". Overall size: 36" x 18" x 18". Base rails not included.  
**40N25776—Blonde.**  
**40N25777—Mahogany.**  
 Each.....51.00

## Motor Board and Slide Assembly



Plywood, with two ball bearing metal slides makes "slide out" mounting board for record changers, wire recorders, etc. For use with small utility cabinet.  
**40N25784—Blonde.**  
**40N25785—Mahogany.**  
 Each.....6.00

## Blonde and Mahogany Base Rails



Set of two tapered solid matching wood base rails (16" long, 2½" high), with two guide strips.  
**40N25778—Blonde, with 20" strips.....3.75**  
**40N25779—Mahogany, with 20" strips.....3.75**  
**40N25780—Blonde, with 14" strips.....3.75**  
**40N25781—Mahogany, with 14" strips.....3.75**  
**40N25782—Single base rail, Blonde.....1.50**  
**40N25783—Single base rail, Mahogany.....1.50**

## ROOMY LAFAYETTE-CONCORD RECORD CABINETS

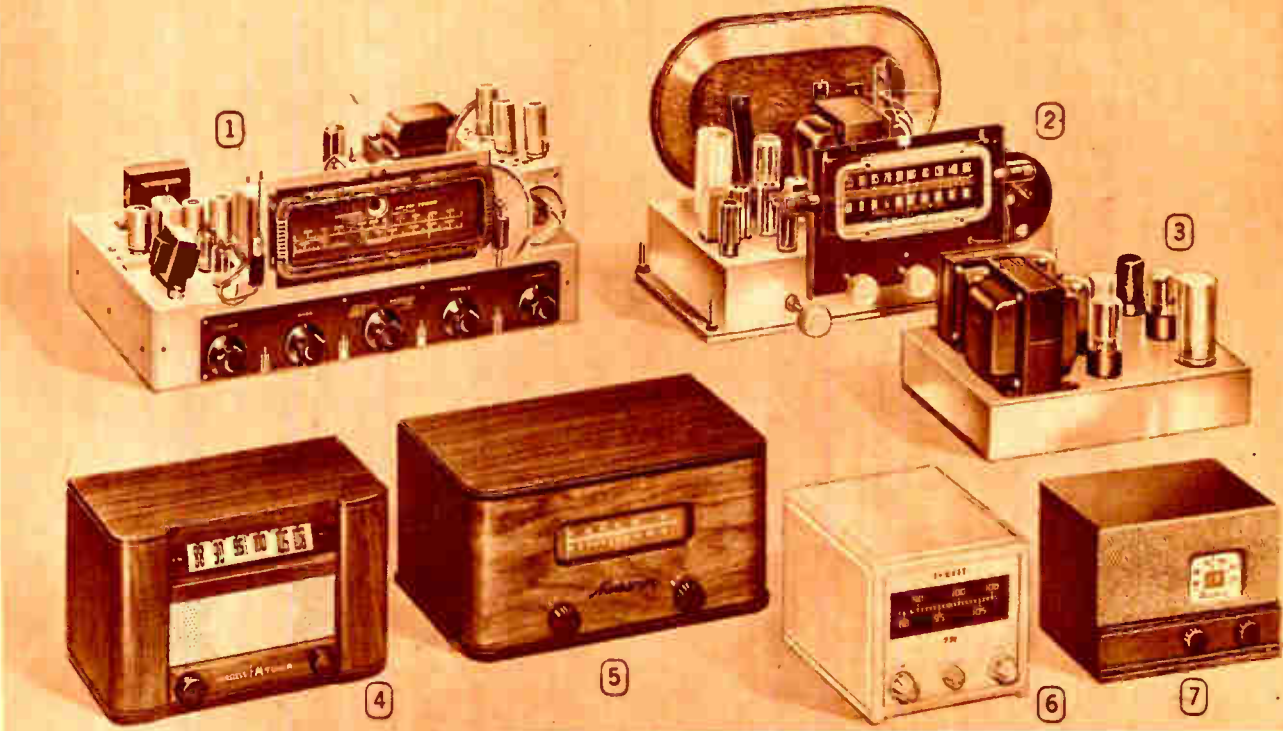
6. Round corners, double semi-partitions. Holds 9-12" albums, 108 records. 19¾" x 17¾" x 28½". Shpg. wt. 31 lbs.  
**40N25765—Mahogany**  
**40N25764—Walnut**  
 Each.....19.35  
 Same without doors.  
**40N25763—Mahogany**  
**40N25762—Walnut**  
 Each.....15.90

7. Handsome double tier cabinet without doors designed for larger collections of albums. Select hardwoods and veneers. Holds 18 albums, 216 records. 19¾" x 17¾" x 33". Shpg. wt. 35 lbs.  
**40N25767—Mahogany**  
**40N25766—Walnut**  
 Each.....21.85

8. Modern cabinet with double doors for large record collections. Flush to floor design with two tiers. Dividers hold albums upright. Holds 20 albums, 240 records. 24" x 16" x 31". Shpg. wt. 50 lbs.  
**40N25759—Mahogany**  
**40N25760—Walnut**  
 Each.....42.95







## High Fidelity Components for Your Custom Installation

FAMOUS FM-AM TUNERS, AMPLIFIER, CHASSIS ASSURE TOP PERFORMANCE

### Meissner AM-FM Tuner Chassis 9-1091

1. Top quality high fidelity unit—contains two separate tuners, power supply, and AF preamplifier all in one chassis. AM coverage 527 to 1620 KC; FM 88 to 108 MC. AM selectivity variable to "Broad" for high fidelity or "Sharp" for selection between adjacent channel stations. Frequency response  $\pm 2$  db 30-15,000 cps. Treble control varies response at 10,000 cps from  $+12$  to  $-14$  db. Bass control provides 10 db boost at 40 cps. Volume control has automatic bass compensation circuit. Sensitivity: less than 10 microvolts. Hum level is 60 db below output. Phono input terminals provided. Antenna connections: single lead-in wire for AM; standard 300 ohm line for FM. Slide dial 2"x7½".

Tube complement: 9003 RF amplifier; 6BE6 oscillator-converter; 2-9003 IF amplifiers (456 KC); 6AL5 detector for AM section. FM section: 6AG5 RF amplifier; 6C4 oscillator, 6AG5 converter; 3-6AG5 IF amplifier (10.7 MC); 2-9001 limiters; 6AL5 detector. 2-6C4's for audio amplifiers, 6U5/6G5 for tuning indicator, 5Y3GT/G rectifier. For 115 volts 50-60 cycles AC. Chassis size: 16½"x10¼"—requires 1¼" extra between chassis and panel.

30N22499—Tuner chassis only. Shpg. wt. 19½ lbs. .... 147.00  
 30N22498—Black wrinkle cabinet for above. Wt. 12 lbs. .... 8.82  
 30N22497—Cabinet panel only. Shpg. wt. 2½ lbs. .... 2.35

### Wireless FM Tuner For Use With Any Radio

4. Picks up FM stations without antenna—converts these signals so that any radio receiver, table model, portable or console, will reproduce the FM program without necessity of wiring converter to radio. Has an active radiation so that receivers within 10 to 20 feet will pick up and reproduce FM stations. The received FM signals are then amplified and transmitted at a frequency where there is no interference from Broadcast stations. May be used with any radio in the home. Tubes: 12AT7, 12AL5, 12SA7, 2-12BA6 and 35W4 rectifier plus 3 Iron Core IF's and balanced FM detector circuit. AC-DC operation. Hand-rubbed Walnut. Dimensions: 11"x7½"x6".

30N22535—FM Tuner. Shipping wt. 7 lbs. .... 28.50

### Meissner Model 8C FM Tuner

5. Adds static-free FM reception to any AM receiver—instantly converting it for thrilling new FM-AM reception. Provides the ultimate in listening thrills, sensationally free from static, station interference and fading. Can be used with any high quality power amplifier with high impedance input. Standard 300 ohm antenna input. Sensitivity 40 microvolts. Output flat within 2 db from 50 to 15,000 cps. Large 5½" slide rule type dial calibrated in megacycles and channel numbers for easier tuning. Built-in power supply for 105-125 volt 50-60 cycle AC operation only. Attractively styled Walnut cabinet, 12¾" x 6¾" x 8".

30N22496—FM Tuner. Shpg. wt. 13 lbs. .... 38.33

### Radio Craftmen Hi-Fidelity FM-AM Tuner

2. Designed with such big set features as automatic frequency control to eliminate FM receiver drift, electronic correction to "lock in" receiver to FM signal. Frequency Range: FM, 88-108 MC, AM 540-1620 KC. Controls include Bass, On-Off Volume, AM-FM Phono-Television, Tuning, and Treble. Two AC power outlets supply amplifier and phono motor. Slide rule edged-lighted dial for fast, easy tuning. Uses nine fully-shielded miniature tubes plus rectifier. For 105-120 volts AC only. Chrome plated chassis. Dimensions: 9"x14"x10".

30N22487—Shipping wt. 17 lbs. .... 110.00

### Radio Craftmen Hi-Fidelity Amplifier

3. 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 65 db. Hum level 65 db below rated output. Frequency response within 1 db from 20 to 20,000 cycles at 8 watts output. High impedance input. Includes four tubes and rectifier. For 105-120 volt, 60 cycle AC. Chrome plated. Size: 7"x10"x6".

30N22488—Shipping weight 12 lbs. .... 39.00

### Howard FM Converter—Fits On Any Radio

6. Precision-built instrument designed for simple connection to any regular AM set—instantly converting it into a thrilling new AM-FM receiver with full coverage of the new 88-108 Frequency Modulation Band. With mounting bracket for fitting on radio or in console record compartment. Modern slide-rule calibrated dial. Sensitivity less than 5 microvolts. Includes built-in antenna, volume control and audio booster stage. Complement of six tubes plus rectifier. Housed in a solid hardwood cabinet 6½" x 6¾" x 7½" deep. Shipping weight 10 pounds.

30N22493—Blonde. Lots of 3, each. .33.09. Each, Singly. . 33.94

30N22492—Mahogany. Lots/3, each 31.82. Each, Singly. . 32.63

### Regency FM Tuner FC-1A With True FM Circuit

7. Finest performance value in the FM field! Adds FM reception to your AM set—gives high quality performance at the lowest possible cost. True FM circuit with full FM bandwidth, high fidelity audio output, high signal sensitivity, minimum distortion, maximum selectivity. Convenient switching circuit so both phonograph and tuner can remain permanently connected. Tube complement: 1-6BE6, 2-6BA6, 1-6AL5 plus selenium rectifier. For operation on AC only. It is compactly designed and housed in a Mahogany cabinet. Size: 7½"x5¾"x5".

30N22485—FM Tuner. Shpg. wt. 6 lbs. Singly. .... 24.25

Each, Lots of Three. .... 20.50



## Complete 5-piece FM-Phono or 2-piece FM-AM Units

ASSEMBLE YOUR OWN HIGH FIDELITY SET IN ANY CABINET OF YOUR CHOICE

### FM-Phono High Fidelity Components—Precision-tested, Performance-packed!

For your supreme listening pleasure Lafayette-Concord offers these selected FM-Phono components with all the inter-connections needed for combining with an AM tuner. The complete package includes a newly designed Meissner 8C FM tuner, a Bogen PH10 High Fidelity amplifier, a fool-proof Webster 156-27 automatic record changer with the new GE variable reluctance magnetic pickup, the GE full-range 12" Alnico V permanent magnet speaker, the GE MSC phono pre-amplifier plus all the necessary inter-connecting wiring, switch and accessories.

The FM Radio-Phono combination operates on 105-120 volts, 60 cycles AC. Automatic record available for 50 cycle operation if specified. In addition to being plant-tested as individual units, the entire group is tested together as a unit by Lafayette-Concord's engineering staff before shipping. Every item required for the installation, except for a cabinet and speaker enclosure, is included at one price. The entire package is shipped ready for instant installation. For a choice of either modern or period design cabinets turn to pages 10 and 12 of this catalog.

#### Meissner 8C FM Tuner

Typical Meissner quality and construction, built with all the precision and circuit wizardry of years spent strictly in communications engineering. This Meissner 8C FM tuner brings in your favorite FM program sensationally free of static, station interference and fading—gives you realistic high fidelity, distortion-free reception. Music and voice are reproduced with amazing clarity that gives the listener every glorious tone and overtone. This high quality FM tuner has numerous applications in the home or wherever a truly good FM tuner is desirable.

The Meissner 8C tuner and Bogen PH10 amplifier form a combination especially suited to the exacting requirements of high fidelity reproduction. The audio fidelity of the tuner is flat within plus or minus 2 db in the audible range of 50 to 15,000 c.p.s. A modern slide-rule type dial is calibrated in megacycles and in channel numbers making it easy for you to select your favorite station. Two finger tip controls, one for tuning and one for on-off volume. The tuner contains the most modern circuits and employs 1-6AL5, 2-6BA6, 2-6AG5 and 2-6C4 tubes and 1-6X5GT/G rectifier. Overall chassis dimensions: 7½"x11"x5".

#### GE Pre-amplifier and Speaker

Pre-amplifier Model M5C for use with high fidelity reluctance pickup. Employs shock mounted 6SC7 in an equalizing circuit. Matches perfectly GE pickup and covers full audio range of 20 to 20,000 cps. Gain 35 db at 1000 cps. Speaker Model S1201D. Excellently constructed 12" Alnico V PM speaker specifically selected to match the Bogen amplifier. Molded one-piece cones assure brilliant frequency response. Normal distortion-free output 25 watt.

#### Webster 156-27 Changer

Famous Webster automatic changer plays twelve 10-in. or ten 12-in. records at one loading. Automatically stops after last record has been played. Featherlight pickup arm is equipped with GE IRM6C variable reluctance magnetic pickup cartridge, which reduces wear on precious records. Only one control button is required for all operations of changer. Cushion-mounted constant speed motor operates on 105-120 volts, 60 cycles AC.

#### Bogen PH 10 Amplifier

This amplifier was chosen to correctly match the Meissner tuner and together they form the heart of the high fidelity system. Because it is designed to give practically humless output, without the distracting noises usually associated with high amplification, the Bogen PH10 amplifier is especially useful in the home. The amplifier is designed with the remarkable newly designed "Multi-Range Tone Control" which provides four separate laboratory selected response curves of audio output.

The first position of the selector gives a deep bass response; the second, a mellow bass with a broadened high frequency response; the third, an essentially flat response with greater coverage of the high frequencies; and the fourth extends the range to cover FM and other wide range music programs and records. There is no guesswork for the user. Four sharply defined frequency response coverages are at your command to provide the finest performance, regardless of the program material. The unit has a power output of 10 watts with a gain of 72 db plus or minus 1 db over the range of 40 to 15,000 c.p.s. Uses 1-6SL7GT and 2-6V6 tubes and 1-5Y3GT rectifier. Dimensions: 5"x11"x6".

#### Custom FM-Phono Installation

Complete with all components above plus all accessories needed for inter-connection. For 105-120 volts 60 cycles AC (changer available for 50 cycle operation if specified). Entire group tested as a unit before shipping.

30N21344—Wt. 50 lbs. . . . . 124.95

Same as above, except Bogen amplifier has 4 ft. extension controls.

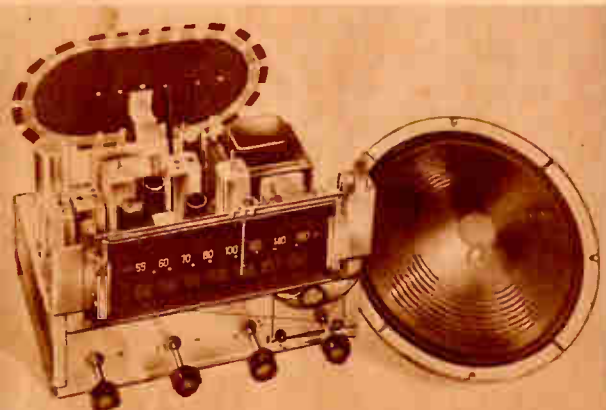
30N21345—Wt. 50 lbs. . . . . 127.94

#### LAFAYETTE-CONCORD FM-AM Chassis and Speaker

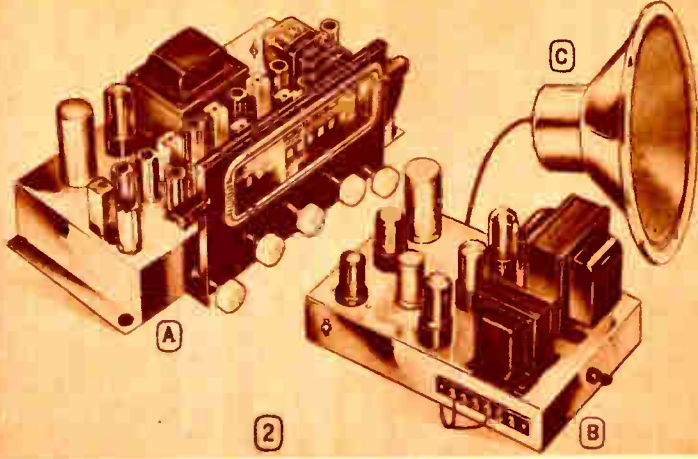
An advanced-design chassis for your custom installation! Truly a set which any professional would be proud to own, and one which any teen-ager can operate with perfect ease. This fine FM-AM chassis may be purchased separately for use with your own console as well as part of the Lafayette-Concord package offer. With this set you may be sure of obtaining full High Fidelity coverage of the 88-108 MC FM band as well as the 550-1600 KC AM standard broadcast band. The large 10" Alnico V PM speaker designed to give outstanding tone quality.

Loop antenna for AM standard broadcast and folded dipole for local FM station reception are supplied with the chassis. Full range tone control and automatic volume control are included for your complete listening pleasure. Phono selection switch and phono input make this chassis ideal for building your own combination radio-phono console. Modern circuit uses 1-6BA6, 2-6SK7, 1-6BE6, 1-6SA7, 2-6SQ7, 1-6SH7, 1-6AL5 and 2-6K6 tubes. 5Y3 rectifier. Chassis dimensions: 12½"x11"x9½" high. Operates on 105-125 volts, 60 cycles AC. Complete with tubes, 10" speaker and antenna as described below.

1N1200—Shipping weight 23 lbs. . . . . 77.50







# High Fidelity FM-AM Chassis for Custom Installation

ESPEY, RADIO CRAFTSMAN, HALLICRAFTERS—FAMOUS NAMES, FINE RECEPTION

## Espey FM-AM Tuner and Amplifier

1. Deluxe matched precision-built high fidelity combination for the discriminating listener who wants to build his own FM-AM console. This Espey tuner has improved automatic volume control, full range separate bass and treble tone controls. Separate r-f stages on both FM and AM. Slide-rule type dial has two frequency ranges: FM, 88 to 108 MC; AM, 540 to 1620 KC. Uses the following tubes: 2-6BA6, 2-6BE6, 1-6C4, 1-6SG7, 1-6SH7, 1-6J5, 1-6SQ7, 1-6AL5 and 1-6U5. Power supply and audio amplifier are included on the amplifier chassis.

AMPLIFIER POWER SUPPLY CHASSIS is especially designed to match the tuner. Uses 2-6J5 in a balanced phase inverter, push-pull circuit driving 4-6V6 triodes in a parallel push-pull output circuit. 2-5Y3GT/G rectifiers. High fidelity amplifier performance is assured through the use of an inverse feedback circuit.

MATCHED 12" HIGH FIDELITY SPEAKER has 25 watt capacity. Tuner chassis dimensions: 13½"x8½"x9". Amplifier chassis dimensions: 13½"x7½"x8". For 105-125 V, 50-60 cyc. AC. Two chassis, M513 Tuner, M514 Amplifier and 12" speaker. IN1900—Shipping weight 55 lbs..... 129.60

ESPEY M512. Complete 9-tube plus rectifier and tuning eye AM-FM tuner chassis similar to above except incorporates its own power supply and without tone controls. IN1104—Shipping weight 20 lbs..... 82.15

## Hallcrafters FM-AM Model S-56

3. Newest addition to the Hallcrafters family, with the usual high quality performance you can always expect from a Hallcrafters unit! Model S-56 chassis offers thrilling, static-free FM reception and hi-fidelity standard AM broadcasts. It is ideal for custom installation. Ten tubes plus rectifier circuit covers standard broadcast band from 540 to 1750 KC, new FM band from 88 to 108 MC.

Frequency response covers entire range of live FM programs. Exclusive Automatic Control "locks in" FM signal—allows no drift. Speaker output impedance, 500 ohms. Large edge-lighted slide-rule dial. With tubes: 6AU6, 2-6BA6, 2-6SH7, 6H6, 6J6, 6S17, 2-6K6GT plus 5Y3GT rectifier. Operates on 105-125 volts, 50-60 cycles AC. Chassis dimensions: 12½"x8¾"x13". 30N21089—Model S-56. Shipping weight 27 lbs..... 110.00

Model S-55 is same as chassis above, but housed in attractive cabinet finished in satin Gray. 18½"x8¾"x13". 30N21088—Shipping weight 30 lbs..... 129.50

## Radio-Craftsman FM-AM Tuner, Amplifier Speaker

2. Now enjoy AM plus genuine Armstrong FM reception! Automatic frequency control assures freedom from drift, eliminates need for a tuning indicator. Separate, continuously variable bass and treble tone controls. Modern edge-lighted slide-rule dial has two frequency ranges: FM, 88 to 108 mc; AM, 540 to 1600 kc. Tuner has separate tuned r-f stages for FM and AM with shock-mounted 6-section, ganged capacitor. With 3-6BA6, 1-6BE6, 1-6AL5, 2-6AU6, 1-6J6, 1-6C4 and 1-5Y3GT/G rectifier. Socket provides 6.3 volts AC, 100 volts DC for pre-amplifiers, etc.

THE AMPLIFIER has 1-6J5, 1-6SN7GT and 2-6V6 tubes in push-pull plus 1-5Y3GT/G rectifier. Has 10 watts undistorted output, 14 watts maximum output. Overall distortion less than 3%. Overall gain 70 db with extremely low hum level. Frequency response flat within ± 1 db from 20-20,000 cycles.

"MUSIC MASTER" 12" SPEAKER is manufactured to the latest standards and offers a wide tonal range. Completely dustproofed. Tuner, amplifier chassis and speaker frame are chrome-plated. Tuner dimension: 9"x14"x10". Amplifier dimensions: 7"x10"x6". Operates on 105-125 volts, 50-60 cycles AC.

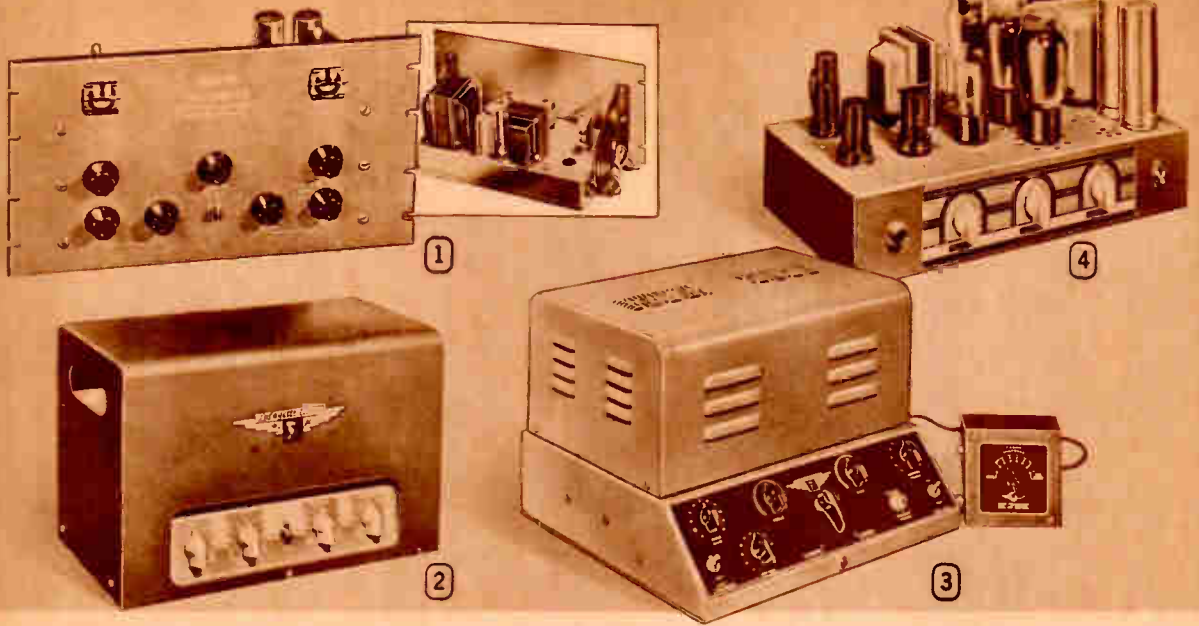
30N22487—Model RC-8 Tuner. Shipping weight 19 lbs... 110.00  
30N22488—Model RC-2 Amplifier. Shpg. wt. 12 lbs..... 39.00  
30N22489—Model RC-3 Speaker. Shipping weight 5 lbs.... 12.20

## Hallcrafters FM-AM Model S-47C

4. Ultra-new radio chassis—perfect for custom installation. Has numerous applications in the home, schools, offices or public institutions where a superior installation is needed. Overall frequency coverage is from 535 to 1720 kc, 5.9 to 18.2 mc, band spread tuning for foreign reception of 9 to 12 mc, 15 to 18 mc, plus new FM band of 88 to 108 mc. Wide vision slide-rule dial accurately calibrated for close tuning. Five push buttons each for FM and AM tuning. 14 tubes plus rectifier.

Audio output 12 watts AM response flat from 30 to 7500 cps. FM flat from 30 to 15,000 cps. Separate bass, treble controls. Phono connections at rear of chassis. Automatic Frequency Control "locks in" receiver to FM station selected—assures minimum drift. Operates on 105-125 volts, 50-60 cycles AC. Speaker impedance 500 ohms. With tubes: 6BA6, 6J6, 6BE6, 3-6SG7, 6SH7, 6AL5, 2-6J5, 2-6SQ7, 2-6V6GT, 5U4G rectifier. 19x16x8½" 30N21068—Shipping weight 55 lbs..... 209.50





## Famous Audio Amplifiers for Your Custom Installation

HIGH FIDELITY REPRODUCTION—MICROPHONE, WIRE RECORDER, PHONO, TUNER

### Fisher Dynamic Noise Suppressor—Wide Range Amplifier

1. Precision designed and laboratory tested to insure the finest reproduction of voice and music. Provides excellent frequency response flat within 1 db from 20 to 20,000 cps. Room filling 20 watts output at less than 1% distortion. Hum level less than 0.5 microwatts for 1 watt output. Built-in phono preamplifier is compensated for GE and Pickering pickups.

SEPARATE BASS AND TREBLE TONE CONTROLS provide 15 db of boost or cut. Separate frequency range and gate sensitivity adjustments regulate the dynamic noise suppressor. Frequency range control determines the range and amount of suppression. Five position suppressor switch: on the 20 KC position the suppressor is inoperative and amplifier is set for full range; on 10 KC position undesired frequencies above 10 KC are attenuated; on the other three positions the suppressor action operates in conjunction with the gate sensitivity control. Action of gate is shown visually by indicators located on front panel. As low and high frequency noise level of recording increases, frequency range and gate sensitivity controls can be adjusted for optimum performance. Response on 1st position with gate closed 70-4000 cps, with gate open 20-20,000 cps; 2nd position covers 90-3200 cps, closed and 20-20,000 cps open; 3rd position covers 120-2700 cps closed and 50-60,000 cps open. Choice of 2 audio or 1 phono input from selector switch on front panel.

AMPLIFIER CHASSIS: 13"x8"x8<sup>3</sup>/<sub>4</sub>", panel 19"x10<sup>1</sup>/<sub>2</sub>" (for standard relay racks. Uses 2-12AT7, 1-6C4, 3-6AB6, 1-6AL5, 1-6AQ6 and 2-6E5 indicators. Power supply chassis: 14<sup>1</sup>/<sub>2</sub>"x8<sup>1</sup>/<sub>2</sub>"x7<sup>1</sup>/<sub>2</sub>", panel 19"x8<sup>3</sup>/<sub>4</sub>". Uses 4-7C5, 1-7A4 and 2-5Y3GT rectifiers. Output impedances of 8 and 16 ohms at speaker jack (mounting impedance transformers of 125 and 500 ohms available at slight additional cost). For 105-120 volt 50-60 cycle AC.

2N400—Shipping weight 72 lbs. . . . . 254.50

### LAFAYETTE-CONCORD "Music Lovers" Amplifier

2. This is the amplifier that music lovers have long been awaiting! Exclusively engineered by Lafayette-Concord engineers for high fidelity reproduction of music and speech. Especially designed to please the ear of the most discriminating listener. The high quality output of this amplifier is truly remarkable, its thrilling realistic reproduction of music unequalled. Full high fidelity frequency range of 4C to 20,000 c.p.s. Ten watts normal rated output, 18 watts peak power output. Only 2% harmonic distortion at rated output. The frequency response is uniform (plus or minus 2 db) over the entire frequency range. Hum and noise level is 65 db below normal rated output. Has one high input channel for microphone, GE, Pickering, Lear and similar type reluctance pickups, and a medium gain channel for radio or crystal phono pickups. Individual continuously variable bass and treble tone controls, with both boost and attenuation. Five output impedances: 2, 4, 8, 16, and 500 ohms. Uses 2-6SC7, 1-6SL7, and 2-6V6 push-pull output, plus 1-5Y3GT/G rectifier.

Handsomely finished streamlined metal cabinet in Burgundy Hammerloid enamel with separate cover. Handles are in the sides of cover. Knobs are of a contrasting ivory tone. Dimensions, with cover: 12<sup>1</sup>/<sub>2</sub>"x7<sup>1</sup>/<sub>2</sub>"x8<sup>1</sup>/<sub>2</sub>". Operates on 105-125 volts, 50-60 cycles AC. With tubes and instructions.

2N131—Amplifier less cover. Shipping weight 22 lbs. . . . . 47.95

2N152—Protective cover. Shipping weight 1 lb. . . . . 2.95

### LAFAYETTE-CONCORD Wire Recording Amplifier

3. Designed by our own engineers for use with the Webster wire recorder foundation unit and as an amplifier with compensation for GE and Pickering phono pickups. Extremely high gain and exceptional high fidelity. Engineered so that low gain input from a tuner or crystal phono pickup can be mixed with high gain input. One high gain input for crystal microphone, GE or Pickering pickup, or wire recorder. One low gain input for tuner or crystal phono pickup. High gain input has fixed bass compensation for GE and Pickering reluctance pickup.

Separate, continuously variable, bass and treble tone controls effective on all inputs. Rated output, 10 watts with less than 5% distortion over the full frequency range. The frequency response is uniform (plus or minus 2 db) over the range of 40 to 15000 c.p.s. When using amplifier in wire recording position, speaker acts as a monitor, with a separate volume control. Superior wire recording frequency response and erasure. Separate high gain and low gain volume controls. Separate tone controls give uniform response in the center position with boost or attenuation either side of the mid-point position. Neon recording level indicator is located on front panel. Wire recording erase and bias oscillator is built into amplifier. Output impedance of 4, 8, 15, and 500 ohms are available. Separate high frequency "roll-off" control is also available for switching from microphone to GE or Pickering pickups. Compensates response range of these pickups to range of recording in six steps.

Burgundy wrinkle chassis finish, blending Hammerloid dust cover. Dimensions, with cover: 10<sup>5</sup>/<sub>8</sub>"x14"x9". Without cover: amplifier is 7" high. For 105-125 volts, 50-60 cycles AC.

2N190—Amplifier with tubes, less cover. Shpg. wt. 25 lbs. . . . . 59.50

2N191—Dust cover for amplifier. Shpg. wt. 1 lb. . . . . 2.95

2N192—6-position roll-off control and switch. Wt. 3 lbs. . . . . 5.95

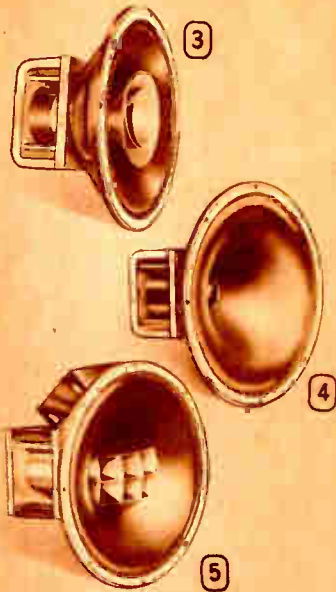
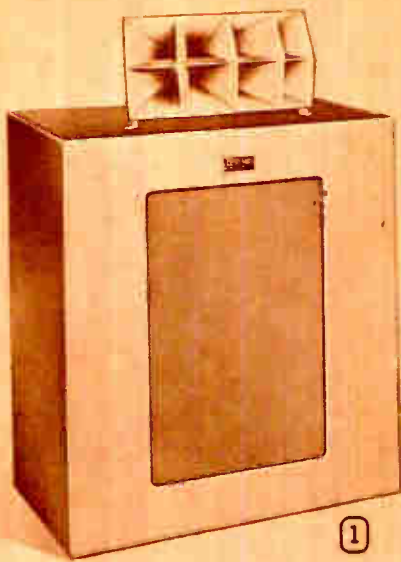
### Thordason T-31W10A Push-pull Amplifier

4. Newly designed and manufactured by Thordason, famous maker of precision engineered radio equipment, this amplifier combines versatility of application with true high fidelity performance. It is a lower power amplifier with the dependability and fine performance of a larger more powerful amplifier. Compactly constructed of the finest material to give you long service. Both the microphone and phonograph input channels allow the amplifier to be used with high-fidelity FM-AM tuners. Unit may also be used as speech amplifier in amateur transmitters or as the amplifier section of a recording installation. Separate bass and treble variable tone controls with both boost and attenuation action assure adaptation to all acoustical conditions.

Excellent frequency response from 40 to 15,000 cps flat within 1 db. Full bodied 10 watts audio output at less than 5% harmonic distortion from 50 to 10,000 cps. High impedance microphone channel has 107 db gain at 100,000 ohms input impedance, high impedance phono channel has 71 db gain at 100,000 ohms input impedance. Hum level is 60 db below maximum rated output. Output impedances of 4, 8, 15, 125, 250 and 500 ohms available at 8-prong receptacle on rear of chassis. Uses 2-6SJ7, 1-6J5, 1-6SN7, 2-6B4 tubes plus 1-5U4G rectifier. Overall chassis dimensions: 14"x8"x7<sup>1</sup>/<sub>2</sub>" high. For 110-120 volts 50-60 cycle AC. Power consumption 117 watts.

2N401—Shipping weight 22 lbs. . . . . 64.68





# Speakers and Enclosures for Your Custom Installation

FAMOUS NAME HIGH FIDELITY UNITS ASSURE FLAWLESS RECEPTION

## Tru-Sonic P52HF Two-Way System and Components

1. Efficiency and fidelity are carefully built into this two-way system. Complete separate low and high frequency heavily powered units provide perfect balance and performance from deepest bass to highest overtones, without emphasizing some frequencies or leaving out others. The feeling of "Presence" and the true meaning of "High Fidelity" are realized in this superb instrument. System includes P-15 High Frequency driver, P52L Low Frequency driver (described at right), Model 800X crossover, and one of the 800 series horns; all in a 52U bass reflex utility cabinet. P-15 High Frequency driver and 8-cell horn are mounted on top of cabinet. Vertical dispersion of high frequencies is 40°. Horizontal dispersion varies with horn used: 80° with 824H, 100° with 825H, and 120° with 826H. 800X crossover network separates input to driver units. Powered by Alnico V PM. Characteristics: 20 watt power capacity, input impedance 16 ohms, frequency response  $\pm 5$  db from 40 to 14,000 c.p.s., crossover frequency 800 cycles, cone resistance 55 cycles. P52HF system with 824H h-f horn in 52U cabinet. 26" x 43" x 15".

22N21317—Shipping weight 140 lbs.....	188.16
22N21320—52U cabinet only. Shipping weight 75 lbs.....	35.28
22N21310—P15 h-f driver. Shipping weight 15 lbs.....	41.16
22N21309—800X crossover network. Ship. wt. 9 lbs.....	26.46
22N21321—824H h-f horn. Shipping weight 19 lbs.....	29.40
22N21333—825H h-f horn. Shipping weight 22 lbs.....	39.69
22N21334—826H h-f horn. Shipping weight 24 lbs.....	44.10

## Tru-Sonic Model 52D Deluxe Reflex Enclosure

2. A distinctive, modern cabinet that will accommodate 15" speakers such as the P52A described at right and others. Reproduces drums, tubes, and lowest voice tones with startling realism. Designed to harmonize with quality furnishings, it will make a handsome addition to your home. Master-crafted of rare hardwoods, hand-rubbed to a glistening finish. Lined with acoustic material to prevent any false resonance. Bronze finished woven wire grill has matching cloth backing. Available in mahogany or bleached blonde finish. 15" baffle.

22N21318—Mahogany. 23½" x 34½" x 16½". Wt. 80 lbs. }	Each
22N21319—Blonde. 23½" x 34½" x 16½". Wt. 80 lbs. .... }	76.44

## Budget-Priced High Fidelity Speakers

6. CINAUDAGRAPH CINAXIAL for FM-TV, sound. 55 to 12,000 c.p.s. 3" h-f unit mounted coaxially within 12" l-f unit. Bridging network mounted on speaker frame—no controls necessary to obtain proper crossover frequency. Use with 10 watt output h-f amplifier. Input impedance 8 ohms. Alnico V PM.

22N19364—Shipping weight 8 lbs.....	16.17
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7. G.E. S1201D, with latest developments—molded cone, Lusteron protective treatment, aluminum voice coil. 12" cone has 14½ oz. Alnico V PM, 1¼" voice coil. 25 watt power cap., input impedance 8 ohms. Each speaker tested before packing.

22N19352—12½" x 5⅞". Shipping weight 9 lbs.....	17.35
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8. RMC HYPER-MAG 8"—fine replacement unit. Center dome parabolic projector for broad h-f response. New magnet design for linear response—100 to 10,000 c.p.s. 12-15 watt power cap., input impedance 4-5 ohms.

22N19399—8⅞" x 3½". Shipping weight 3 lbs.....	8.35
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## Tru-Sonic Co-spiral Speaker

3. Revolutionary new speaker design especially suited for replacement use where excellent fidelity is desired. High electro-acoustic transfer efficiency and wide range achieved with only one voice coil and with no crossover network. Uses two acoustic sections, one which is a 15" molded cone for bass reproduction, and the other, for extended high tones, is a mathematically designed acoustic spiral which gives 90° of high frequency dispersion. Reproducing range is 40 to 14,000 c.p.s., widest of any speaker employing only one voice coil. 15 watt power capacity, input impedance 8 ohms. 40 oz. Alnico V PM.

22N21314—P52FR, 15". Shipping weight 28 lbs.....	47.04
22N21313—P22FR, 12". Shipping weight 28 lbs.....	41.16

## P52L Low Frequency Driver

4. Built to the most exacting standards of precision engineering, this Low Frequency driver unit is designed for use in P52HF separate two-way speaker system described at left above. It employs a top quality 4 pound Alnico V permanent magnet to insure peak efficiency. Cone resonance 55 cycles. Characteristics: 20 watt power capacity, input impedance 16 ohms

22N21312—15½" x 8⅞". Shipping wt. 30 lbs.....	47.04
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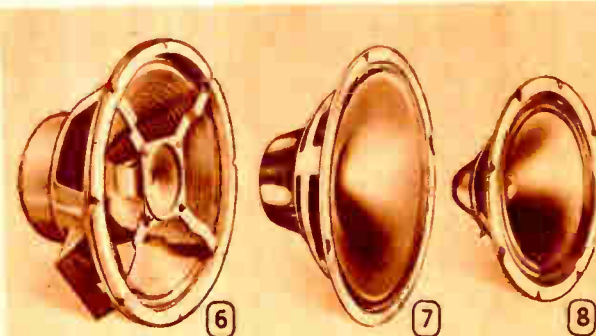
Low Frequency driver like above, except with smaller 12" cone. Equipped with 2½-lb. Alnico V permanent magnet. P22L

22N21311—Shipping weight 30 lbs.....	35.28
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## Tru-Sonic P52A Coaxial Speaker

5. This speaker combines in a single assembly a 15" bass speaker, high frequency speaker with small precision-built diaphragm, 8-cell horn unit, and crossover network that divides highs from lows and channels each to proper speaker. The h-f unit is mounted coaxially with the l-f unit. Vertical dispersion of h-f 40°, horizontal distribution 60°. 6½ lb. Alnico V PM. 13½" baffle. May be installed in 52D or 52U cabinet. Characteristics: 20 watt power cap., input impedance 16 ohms, frequency response  $\pm 5$  db from 40 to 12,000 c.p.s., crossover frequency 1200 cycles, cone resonance 55 cycles.

22N21315—15½" x 10". Shipping weight 35 lbs.....	120.54
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Jensen



1



2



3



4

## Fine Speakers, Enclosures Designed by Two Famous Makers

### Jensen RB-151 Reproducer and Enclosures

1. Handsomely styled utility reproducer using HNP-51 Speaker described below at right. Both units carefully matched for performance and dependability. Reproducer and enclosures listed below are of Brown molded composition with bright metal trim. Reproducer size: 30 $\frac{3}{4}$ "x27 $\frac{1}{4}$ "x12 $\frac{1}{4}$ "

22N21331—Shipping weight 57 lbs.....	123.97
Enclosures only. Shpg. wt. B151 and B121, 14 lbs.; B81, 10 lbs.	
22N18998—B151, for 15" speaker, 30 $\frac{3}{4}$ "x27 $\frac{1}{4}$ "x12 $\frac{1}{4}$ ".....	34.47
22N18996—B121, for 12" speaker, 28 $\frac{1}{2}$ "x22 $\frac{3}{4}$ "x11 $\frac{1}{8}$ ".....	29.08
22N18994—B81, for 8" speaker, 22 $\frac{3}{4}$ "x18"x9".....	20.58

### Jensen RD 151 Reproducer and Enclosures

2. Deluxe Bass Reflex reproducer using HNP-51 Speaker described at right. Reproducer enclosure and the others listed below are constructed of hand-rubbed hardwoods and striped walnut veneer, specially designed to complement the modern touch in home decoration. Includes fabric-covered bronze grill for enriched response. Reproducer size: 31 $\frac{1}{4}$ "x27"x13 $\frac{3}{8}$ "

22N21330—Shipping weight 57 lbs.....	140.14
Enclosures only. Same size as above.	Each
22N18946—D151, for 15" speaker. Shpg. wt. 50 lbs....	50.64
22N18945—D121, for 12" speaker. Shpg. wt. 50 lbs....	

### Altec Lansing Model 605 Cabinet

5. Beautiful, hand-rubbed hardwood speaker enclosures provide balanced low frequency response. Model 605A designed for 15" speaker, Model 605B for 12" speaker.

22N21340—605A. Walnut	22N21342—605B. Walnut
22N21341—605A. Mahogany	22N21343—605B. Mahogany

Any Type ..... 135.00

### Altec Lansing Model 603B

7. Speaker has 15" bass cone, 3" voice coil. Multi-cellular horn distributes H-F at 60° horizontal, 40° vertical angle. 25 watt cap. Voice coil impedance 8 ohms. Covers 30 to 12,000 c.p.s.

22N19395—15 $\frac{1}{8}$ "x7". Wt. 21 lbs. 63.00

### Altec Lansing Model 600B

8. Dia-cone speaker ideal for home installations. Extremely efficient, yet takes up small space. Edge wound, flat aluminum, 3" voice coil in 12" cone. 20 watt cap. Voice coil impedance, 8 ohms.

22N19394—12 $\frac{1}{4}$ x5 $\frac{1}{4}$ ". Wt. 15 lbs. 45.00

### Altec Lansing Model 400B

9. Low-priced, compact 8" dia-cone speaker. Has exceptionally high 12 watt power rating capacity. Fine high frequency reproduction up to 10,000 c.p.s. Voice coil impedance 8 ohms.

22N19393—8 $\frac{1}{4}$ "x3 $\frac{5}{8}$ ". Wt. 7 lbs. 18.00

### Jensen Type J Speakers for Use with Any Receiver

3. Cone "tweeter" mounted within cone of "woofer". 15" models have 2 channel network, "roll-off" control. Range: 50 to 15,000 c.p.s. Input impedance: 500 ohms. 12" model has bridging network, H-F control excluded. Range 50 to 10,000 c.p.s. Input impedance: 6 ohms. JAP-60 has 20 watt cap., JHP-52 has 16 watt cap., JRP-40 has 40 watt cap. Use with enclosure at left.

22N19007—JAP-60. 13 $\frac{3}{4}$ " baffle. 15 $\frac{1}{8}$ "x8 $\frac{1}{8}$ ". Wt. 24 lbs.	55.54
22N19002—JHP-52. 13 $\frac{3}{4}$ " baffle. 15 $\frac{1}{8}$ "x7 $\frac{1}{2}$ ". Wt. 23 lbs.....	47.04
22N19008—JRP-40. 11" baffle. 12 $\frac{1}{8}$ "x5 $\frac{1}{8}$ ". Wt. 16 lbs.....	19.60
22N9010—H-F level control for use with JRP-40. Wt. 2 lbs.....	1.76

### Jensen Type H, Model HNP-51 Coaxial Speaker

4. Compression type H-F speaker and L-F cone type speaker in a coaxial unitary assembly with integral 2-channel frequency network mounted on speaker frame. An H-F. range control switch is attached to the 2-channel network by a 36" cable. Four-position H-F "roll-off" control can be set at 15,000, 10,000, 7,500 and 6,000 c.p.s. H-F speaker is mounted behind L-F unit and fed through the field by means of a trumpet. L-F cone voice coil is built around this trumpet. Input impedance, 500/600 ohms. 25 watt cap. H-F and L-F unit powered by Alnico V PM.

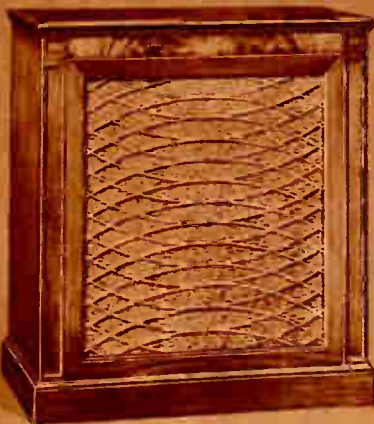
22N19003—15 $\frac{1}{8}$ "x10 $\frac{3}{8}$ ". Shipping wt. 19 lbs..... 81.66

### Altec Lansing Model 6048 Duplex Speaker

6. Two-way speaker with response of 30 to 15,000 c.p.s. H-F range covered by multi-cellular horns, 15" cone covers L-F. 60° horizontal, 40° vertical distribution. Matching crossover network with frequency of 1000 cycles has adjustable control that distributes H-F, L-F. 30 watt cap. Network impedance 16 ohms.

22N19392—15 $\frac{1}{4}$ "x11 $\frac{1}{8}$ ". Shipping weight 48 lbs..... 175.50

18



5

Altec Lansing



6



7



8



9





① 399.50



② 269.50 up

## TELE-KING TELEVISION—choice of 10 or 12-inch screens AUTOMATIC FREQUENCY CONTROL ASSURES CLEAR, STEADY PICTURES

Both Models Have New "Interlocked Chassis"—Available in Blonde, Mahogany or Walnut

It's here at last—Large 10-inch direct view screen—60 square inch picture area, larger than any other 10-inch receiver—Plus an unbelievably low dollar-saving price tag. Provides many hours of top quality entertainment for every one in the family—for the children there are many hours of pleasure-packed programs written and presented especially for the youngsters—adult entertainment includes full length movies, nite club shows and sports including baseball, boxing, wrestling and racing to provide countless interesting evenings at home.

This best buy in full size quality television brings you big, exceptionally clear, detailed pictures on the face of the 10-inch tube, movie bright pictures even in daylight. You'll hear all the warmth and subtlety of voice and music on the noise free FM acoustical system. With both sight and sound at their very best, your television listening pleasure will be doubled. Thirteen factory preset tuning channels assure you of brilliant reception of the television stations within your district. Powerful supersensitive video and audio circuits assure peak quality reception even in outlying low strength fringe area.

Automatic Frequency Control assures clear, steady pictures at all times—eliminates all picture jitter under the most difficult noise conditions. Three watts static free FM audio output. New "Interlocked Chassis" eliminates danger of shock from high voltage by automatically turning off power if cover is removed. Tubes employed include: 6BH6, 6C4, 5-6AG5, 3-6AL5, 4-6AU6, 2-6K6, 3-6BA6, 2-6AQ5, 2-6SN7, 6J6, 6BG6, 10BP4 picture tube plus 1B3G, 5V4G, 5U4G, 5Y3GT rectifiers. Beautiful styling—original design—truly a masterpiece of the cabinet makers art. 24 1/4" x 15 1/2" x 19 1/2". With tubes.

- 1N106—Walnut. Shpg. wt. 90 lbs..... 269.50
- 1N107—Mahogany. Shpg. wt. 90 lbs..... 279.50
- 1N108—Blonde. Shpg. wt. 90 lbs..... 289.50
- Similar to above in electrical characteristics, but with large 12-inch picture tube
- 1N109—Mahogany. Shpg. wt. 100 lbs..... 399.50

10" Models available in console cabinet.

## LAFAYETTE-CONCORD TV-FM-AM console shown on our front cover DISTINCTIVE, LUXURIOUS—TRULY WORTHY OF FRONT COVER PRESENTATION

For our Front Cover, we have reserved the finest combination of them all—one which for true magnificence and performance cannot be surpassed. Everything you could possibly desire for complete home entertainment is yours in this extraordinary instrument. Housed within the genuine hand-rubbed mahogany cabinet is an advanced-design Television receiver which affords a full 54 square inches of picture area, a powerful superheterodyne radio chassis offering superb High Fidelity reception on both FM and standard broadcast bands, an automatic record changer with High Fidelity, plus generous storage space. Truly a distinguished installation to delight the eye, the ear and the heart of the most discriminating music-lover—representative of the fine craftsmanship of Lafayette-Concord.

Each component is the finest of its kind—chosen by Lafayette-Concord engineers only after exhaustive tests had proven it so! Hand-Rubbed Mahogany Cabinet adds richness and beauty to any home. Molded of finest hardwoods in traditional Regency styling with handsome burnished brass escutcheon plate, it is truly an outstanding achievement of the cabinet-maker's art. Automatic Record Changer in convenient slide-out compartment plays continuously for 60 minutes, either ten 12" records or twelve 10" records at one loading, and features High Fidelity reproduction. Contains lightweight crystal tone arm with semi-permanent type floating point needle that reproduces every tone with utmost brilliance and clarity. 78 RPM governor-controlled motor is both silent and powerful in operation.

**The Television Receiver** tunes all thirteen Television channels with amazing clarity and viewing brilliance—includes contrast control which regulates picture, brightness control for viewing brilliancy, horizontal and vertical controls which frame picture properly. 10" picture tube provides a 54 square inch picture which may be viewed even in daylight.

**The FM-AM Radio Chassis** is a superheterodyne employing latest-type low-drain tubes plus Selenium rectifier for instant operation. Tuning range covers standard broadcasts from 540 to 1600 KC and static-free FM (Frequency Modulation) band from 88 to 108 Megacycles. Superb High Fidelity reception assured by such outstanding features as Automatic Volume Control, full-range Bass and Treble tone control and new permeability tuned IF transformers. Large 8" PM dynamic speaker employing Alnico "V" magnet provides glorious tone quality and tremendous volume. Tube complement: 3-12BA6, 1-12BE6, 1-6AQ6, 1-12H6, 1-50B5 plus a selenium rectifier. Built-in loop antenna and folded dipole antenna for FM.

Overall dimensions 21 inches deep, 39 inches high, and 37 1/2 inches wide. Operates on 105-120 volts AC.

- 1N110—Shipping weight 165 lbs..... 498.50





199.50



189.50

## NATIONAL TELEVISION with automatic station selector

### NEW 7-INCH DIRECT VIEW RECEIVERS HAVE TWIN 6-INCH SPEAKERS

#### Enjoy Excellent Sight and Sound Reception in Your Choice of Rich Mahogany or Gray Metal Cabinets

The mere flick of a switch is your price of admission to big, clear, detailed moving pictures on the face of a full 7-inch television tube. Easy to operate . . . Automatic Station Selector is factory pre-tuned, brings in picture and sound together, instantly and perfectly synchronized, when switching from channel to channel. No fumbling with controls to find the picture and sound. You select your station on a dial . . . then sit back to enjoy the show. Video circuits and FM sound circuits super-powered to perform perfectly—to give you bright, steady pictures on all 13 channels even in outlying areas.

In the comfort of your own home—relax and enjoy a fine movie performance . . . get into the spirit of action at sports events . . . see and hear the latest news as prepared by your favorite commentator. Take a ringside seat at educational discussions, children's programs, home economics classes. All these and more are now yours through the magic of modern television. National's new television receivers bring you superb sight and sound reception for utmost enjoyment of all these programs.

Crystal-clear, static-free FM sound system matches "lock-in" image control for flickerless, superb performance. Seven-inch electrostatic picture tube, 18 radio tubes and 3 rectifiers provide a sharp, brilliant action picture under normal room lighting conditions. Twin well-baffled 6-inch PM speakers reproduce FM sound realistically with plenty of volume. Full 13 channel coverage—any ten channels may be tuned by Automatic Station Selector. Fine adjustment for critical tuning. Automatic Gain Control compensates for varying signal levels, keeps picture and sound at constant intensity. Antenna input impedance circuit matches 300 ohm balanced line. For 117 Volt 60 cycle AC only.

1. National 7-inch direct view television receiver in hand-rubbed Mahogany cabinet. Measures 20 $\frac{3}{4}$ " x 12 $\frac{3}{4}$ " x 17 $\frac{1}{4}$ ".  
29N21251—Shipping weight 55 pounds..... **199.50**

2. National 7-inch direct view television receiver in attractive Gray metal cabinet. Measures 19 $\frac{1}{4}$ " x 11 $\frac{1}{2}$ " x 18".  
29N21250—Shipping weight 55 pounds..... **189.50**

## HALLICRAFTERS TELEVISION—exclusive push-button tuning

### NEW 7 AND 10-INCH DIRECT VIEW RECEIVERS—SHOWN ON BACK COVER

#### Direct View 7-Inch Television Receivers

Just press a button and enjoy your favorite station or program on this full size 7-inch television picture tube. 23 square inches of moving, entertaining action! Inter-carrier modulation type FM sound system powers a large dynamic PM speaker to provide room-filling volume. Electrostatic deflection tube provides a steady, bright image with clear whites against solid velvet blacks with perfect, continuing clarity despite variations in signal strength. No need to dim room lights. See and hear your favorite bands, vocalists, news programs and sporting events . . . all clear, sharp and bright . . . all in perfect focus.

1. 7-Inch Television in hand-rubbed, piano finish Mahogany veneer cabinet. Rich modern styling blends with any room. Airodized front panel. Rubber coasters. 20 x 9 $\frac{3}{4}$  x 16".

29N21053—Shipping weight 45 lbs..... **179.50**

2. 7-Inch Television in handsome steel cabinet. Rich silver Gray finish with two-tone Gray panel and polished chrome trimmed controls. Size: 20" wide, 9 $\frac{3}{4}$ " high, 16" deep.

29N21050—Shipping weight 45 lbs..... **169.50**

#### Direct View 10-inch Television Receiver

This attractively styled table model receiver has push-button tuning on all 12 television channels to bring you sharp, stable pictures with plenty of brilliance and contrast. No need to dim the room lights. Screen is full size 10-inch electrostatic television picture tube . . . comfortable viewing for 10 to 15 persons in the average living room. Large PM speaker is set in a diffusing grille to distribute the true FM sound reproduction over a wide area so that all may hear with ease. Automatic gain and black level controls are built into the circuit . . . maintain the brilliance and FM sound at your pre-set intensity and contrast, regardless of the variations in signal strength from the transmitter. Easier to operate than your radio phono combination.

Beautiful brown plastic cabinet occupies less area than the average table model phono-radio, harmonizes with all room furnishings. Gold trim. Safety glass protects picture tube. Complete with 22 radio tubes, high voltage rectifiers and selenium low voltage rectifiers and 10" picture tube. For 110 Volt 60 cycle AC operation. Size: 16 $\frac{3}{4}$ " wide, 17 $\frac{1}{2}$ " high, 19 $\frac{7}{8}$ " deep.

29N21054—Shipping weight 95 lbs..... **279.50**

#### New—Hallcrafters Big Picture Television System for Custom Installations—Shown at Right

Full 192 square inches of spectacular television action—larger than most tabloid newspapers. With this system you get a bright, sharp picture 16 inches wide and 12 inches high. Clear, steady, optically correct, eliminates eye fatigue. May be viewed comfortably within the average living room. Excellent viewing day or night—no need to dim room lights. Optical system continually stable and remains in perfect adjustment indefinitely. Uses modification of famous Schmidt optical system, offering highest efficiency in minimum of space. Hi-fidelity FM sound system provides easier tuning and full natural, static-free reception. Exclusive new design by Hallcrafters for custom installations. Amazing projection type television assembly opens unlimited possibilities for the design and installation of "full size" television into your home, office or club. Size and quality are combined to bring you the very best in fine custom installations.

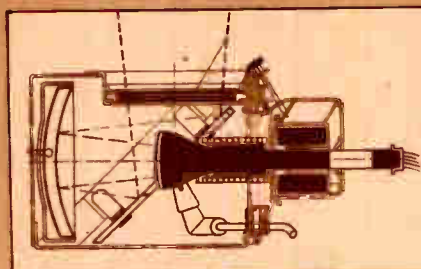
Build the entire assembly into book cases or wall cabinets for a permanent installation—or install the screen and speaker wherever you wish—with the chassis and controls at your chair-side in the most convenient viewing location. Install the entire unit in the custom cabinet of your own choice and design. Proportions of the assembly lend it to graceful cabinet treatment—with or without screen concealing doors. In club rooms, halls, schools, taverns . . . wherever large crowds gather, the large size and strength of the image make it highly practical for viewing from a distance. Model T-60 Projection Unit complete with all tubes, 13-channel video and sound chassis, factory pre-set optical system, high voltage unit, magnetic projection triode, PM speaker—all mounted in special rack 25" x 45" x 13".

29N21051—Shipping weight 95 pounds..... **595.00**

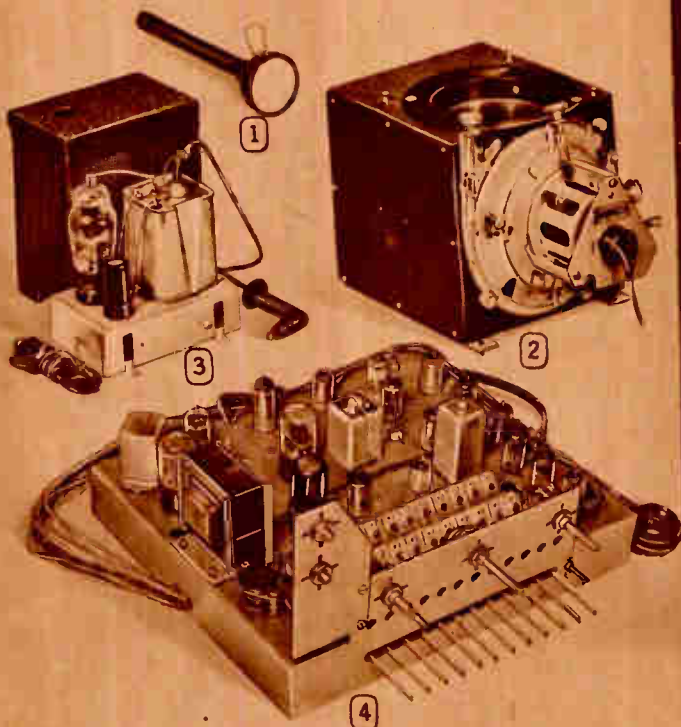


# NEW HALLICRAFTERS 16x12-inch picture television system

## DESIGNED FOR CUSTOM INSTALLATIONS—WITH 192-SQUARE-INCH SCREEN



This shows how the various elements go together. The 2½" tube is inserted into optical system. Mirrors and lenses magnify and project image. A 31" throw results in a 16x12" picture of intense clarity.



### 1. Magnetic Projection Triode

Tube is 10½" long, 2½" diameter. Has 5 prong base, fitting special socket. Second anode contact is surrounded by glass cup near tube face. Molded thermo-plastic cable carries 25kv second anode potential. The tube face plate is optically correct, made of specially developed glass, not discolored by 25kv electron bombardment. Aluminum coating on phosphor screen of face plate increases light output and prevents ion spots. Both focusing and deflection are magnetic. Full deflection possible using only excitation required to deflect a 10BP4 10" direct viewing tube at 9 kv available from 10" TV chassis.

### 2. Highly Efficient Optical System

This compact metal "box" consists of a highly efficient optical unit and alignment assembly, mounted together by four screws permitting rapid tube replacement and service inspection. With it an 8.6 linear magnification of the picture and an effective aperture of f0.62 is obtained.

Complete compactly-designed case measures only 8½" high, 8½" wide and 9" long, and is finished in Black crackle enamel. The optical unit contains three optical elements: (1) a 6" spherical mirror with 200mm radius of curvature, (2) an aspherical corrector lens of 4½" diameter, and (3) a special plane mirror to "fold" the light beam. These three elements form an optical triangle within the optical unit and are adjusted at the factory. Under normal use and handling the unit will remain as factory preset and need no further adjustment.

The optical unit is completely enclosed and dustproof! Only the upper face of the corrector lens is exposed, and it can easily be dusted with an ordinary cloth without scratching. A throw distance of 31 inches from the corrector lens to the viewing screen is required for proper focussing of the picture.

### 3. 25 KV, High Voltage Unit

This new, compact unit combines the advantages of light weight, small size, extreme reliability and stability. New design eliminates all electrical radiation. Only 8½" high, 4½" wide and 7" long, it weighs only 5 lbs. Input requirements are: Filament supply, 6.3 volts at 1.2 amps; Plate supply, 350 volts B at 50 milliamps maximum. Mounted on compact 7" x 4½" chassis are a 6SR7 duplex-diode triode, a 6BG6G beam power amplifier, other circuit components and sealed transformer assembly. The transformer assembly is 4" high, 3" wide and 3" long and consists of transformer and three rectifier diodes.

### 4. Model T-60 Receiver Chassis

Specifications of the receiver chassis are: 22 tubes plus selenium low voltage rectifiers and 3 high voltage rectifiers. 12 channel push-button selector switch covers all assigned TV frequencies. RF amplifier for improved signal-to-noise ratio and for increased sensitivity. 3 IF amplifiers for proper band width and best picture definition. 2 video amplifiers to provide full picture contrast under weakest signal conditions. Improved synchronizing circuits incorporate the latest developments to assure positive synchronization even under bad noise conditions.

Automatic gain control assures constant brightness—picture will not increase or decrease in intensity despite variations in signal strength. Single picture control for all contrast factors. Inter-carrier FM (Frequency Modulation) sound system provides easier tuning and full natural static-free sound reception.

Front panel controls include the following: channel selector, fine tuning, horizontal hold, vertical hold, volume and picture on-off. Rear panel controls include: vertical size, vertical linearity, horizontal size, horizontal linearity, brightness, electrical focus, optical focus, vertical centering and horizontal centering.

**AMPLIFIERS AND SOUND SYSTEMS  
COST LESS HERE . . .**

**. . . AND EVERY  
LAFAYETTE-CONCORD AMPLIFIER IS  
GUARANTEED FOR ONE FULL YEAR!**

**Compare anywhere—you get more inputs and higher wattage for your dollar . . .  
plus this outstanding feature found only in Lafayette-Concord sound systems**

**ALL SPEAKERS  
COME  
ALREADY MOUNTED  
IN BAFFLES  
AND  
PORTABLE CASES  
WHEN  
SOLD IN PACKAGES**



**Guaranteed  
FOR ONE FULL YEAR!**

All Lafayette-Concord amplifiers are guaranteed for one full year for replacement or repair of any defects in workmanship or materials. Buy with confidence—this guarantee assures you of lasting dependability.

**All Systems Complete, Ready to Operate**

All Lafayette-Concord sound systems come complete with everything you need for immediate operation—plug and 35 feet of cable already attached to every speaker, microphone cable and plug already attached to microphone, all necessary tubes with every amplifier. All you do is plug mike into amplifier, speakers into amplifier, amplifier into outlet—and operate!

**Speakers Mounted in Baffles or Cases**

To save you time and trouble, all speakers sold in packages are mounted in baffles or portable cases—at no extra cost to you! Here only will you find this special convenient service—positive proof that Lafayette-Concord serves you best and saves you most!

**Dependable Sound Equipment for Every Need**

Whatever your needs in sound equipment—high or low power, stationary or mobile, indoors or out—you'll find exactly what you want on the following pages. Choose a permanent or portable sound system, high-fidelity amplifier, or sound system accessory package with complete confidence . . . for today, just as for the past 28 years, Lafayette-Concord sound equipment gives you dependable service, fine performance and true reproduction at dollar-saving prices. If, at any time within 15 days, you are not completely satisfied with the equipment you have bought from us, return it for exchange or refund of your money less transportation charges. Write today for complete details about our convenient Time Payment Plan.

**Free Technical Service To Help You**

Our expert staff of engineers . . . skilled by years of experience in all phases of radio, electronics and public address systems . . . are ready to help solve all your sound problems. This is another special Lafayette-Concord service available at no extra cost to you! No problem is too big or small for our engineers—they'll advise you about a simple call system or a plant-wide broadcast system cheerfully, quickly, expertly. Let them help plan your public address installation—they'll study your needs, recommend sound equipment that will do your job best, and submit careful cost estimates. Take advantage of this free service. Write today, state your problem, and let our experienced engineers work out the solution for you.







## LAFAYETTE-CONCORD Deluxe 15 and 30 watt amplifiers

**TOP QUALITY, LOW PRICE . . . GUARANTEED FOR ONE FULL YEAR**

### 15 Watt LAFAYETTE-CONCORD Deluxe Amplifier

Newly designed 15 Watt Deluxe amplifier incorporates latest developments in sound engineering. Many features formerly found only in more expensive sound systems are now available in the lower price range. Precision workmanship and quality parts are combined in a design to assure high fidelity sound reproduction. Covers up to 1500 persons, areas up to 30,000 sq. ft. Complete with tubes and instructions.

2N129—Shipping weight 22 pounds..... **36.90**

Both 15 and 30 watt Amplifiers are available from stock as separate units or in complete portable or permanent sound systems, ready to operate. Select your complete system below.

### Specifications—15 Watt Amplifier

OUTPUT.....15 watts @ 5% or less distortion, 25 watts Peak.  
 CHANNELS.....2 Mikes and 1 Phono or 1 Mike and 2 Phonos.  
 INPUT IMPEDANCES.....All channels are high impedance.  
 GAIN.....Microphone inputs 120 db, @ 3 megohms.  
 Medium gain inputs 70 db, @ 5 megohms.  
 BASS TONE CONTROL.....@ Maximum gives flat response or @ Minimum gives 10 db attenuation @ 70 cps.  
 TREBLE TONE CONTROL.....@ Maximum gives flat response or @ Min. gives 15 db attenuation @ 10,000 cps.  
 HUM AND NOISE.....Tone controls in Max. position; Mike channels 55 db below 15 watts, Medium gain channels 65 db below 15 watts.  
 FREQUENCY RANGE.....30 to 15,000 cps ± 2 db.  
 OUTPUT LOAD IMPEDANCES.....2, 4, 8, 16, 333 (70 volts) and 500 ohms.  
 TUBES USED.....2—6SJ7, 1—6SC7, 2—6L6, and 1—5Y3GT  
 LINE DRAIN.....85 watts at 117 volts, with phono top 105 watts.  
 DIMENSIONS.....14" x 8½" x 9½"; with phono top 11½" high.

### Specifications—30 Watt Amplifier

All specifications same as 15 watt amplifier except:  
 OUTPUT.....30 watts @ 5% or less distortion, 40 watts Peak.  
 OUTPUT LOAD IMPEDANCES.....2, 4, 8, 16, 167 (70 volts) and 500 ohms.  
 HUM AND NOISE.....Tone controls in maximum position; Microphone channels 60 db below 30 watts.  
 TUBES USED.....2—6SJ7, 1—6SQ7, 1—6SC7, 2—6L6, 1—6X5, 1—5U4G.  
 LINE DRAIN.....130 watts at 117 volts, with phono top 150 watts.

### 30 Watt LAFAYETTE-CONCORD Deluxe Amplifier

Designed to cover indoor audiences of 3000 people and outdoor areas up to 60,000 sq. ft. An ideal unit for ballrooms, railroad terminals, churches and theatres. Complete with tubes, instructions and all necessary connecting plugs.

2N130—Shipping weight 25 pounds..... **54.70**

PHONOGRAPH ACCESSORY TOP. The top panel of both the 15 and 30 watt models can be removed and replaced by a new panel housing the phono motor and turntable. Panel is perforated beneath the turntable to provide maximum ventilation. All connections made at rear of cabinet for protection.

2N133—Shipping weight 9 pounds..... **11.50**

## LAFAYETTE-CONCORD Deluxe portable and permanent systems

**SHOWN AT RIGHT—15 AND 30 WATT INDOOR-OUTDOOR SYSTEMS**

### 15 Watt Portable System

1. Everything ready to operate! Consists of 15 watt Deluxe amplifier above that's guaranteed for one full year, two built-in 12 inch General Electric Alnico V PM speakers. Shure model 707A20 microphone (A on page 25) and floor stand. Amplifier is mounted on sliding panel in carrying case. With 70 feet of speaker cable and 20 feet of microphone cable attached, tubes and instructions. Case size: 14¼" x 18" x 23" high.

2N134—Shpg. wt. 70 lbs..... **77.75**

15 Watt Portable System—same as 2N134 above except with Electrovoice model 610-20 microphone (B on page 25) instead of Shure 707A20 microphone.

2N136—Shpg. wt. 70 lbs..... **81.75**

### 30 Watt Portable System

1. Just plug in and operate! Includes 30-watt Deluxe amplifier (guaranteed for one year) mounted on sliding panel in carrying case, two built-in 12-inch G. E. 25-watt Alnico V PM speakers with 70 feet of cable attached, Shure 707A20 microphone (A) with 20 feet of cable, floor stand, and tubes. 18" x 14½" x 23".

2N137—Shpg. wt. 78 lbs..... **95.75**

Same as 2N137 but with Electrovoice 610-20 mike (B) instead of Shure 707A20.

2N139—Shpg. wt. 78 lbs..... **100.75**

Case—¾" plywood, tan simulated rawhide. For two 12" speakers, one amplifier as shown on page 25.

N20058—Shpg. wt. 24 lbs..... **11.25**

### 15 Watt Indoor System

2. Complete system for permanent use, ready to go! Place units where you want them, connect to amplifier, and operate! Includes guaranteed-for-one-year 15-watt Deluxe amplifier above, two 12-inch G.E. 25-watt speakers already mounted in 12-inch leatherette baffles, 70 feet of speaker cable, Shure model 707A20 microphone (A on page 25) with 20 feet of cable and adjustable floor stand. Complete with tubes and instructions.

2N175—Shpg. wt. 75 lbs..... **72.90**

15-watt Permanent Indoor System—same as 2N175 above but with Electrovoice model 610-20 microphone (B on page 25) instead of Shure 707A20.

2N178—Shpg. wt. 75 lbs..... **78.45**

### 30 Watt Indoor System

2. Complete permanent public address sound system. Just connect speakers and microphone to amplifier, amplifier to outlet, and operate! Consists of 30-watt Deluxe amplifier that's guaranteed for one full year, two 12-inch General Electric 25-watt PM speakers already mounted in handsome leatherette baffles, 70 feet of speaker cable, Shure model 707A20 microphone (A on page 25) with 20 feet of cable and floor stand. With tubes.

2N177—Shpg. wt. 78 lbs..... **90.95**

30-watt Indoor System—same as 2N177 above except with Electrovoice model 610-20 microphone (B on page 25) instead of Shure 707A20 microphone.

2N178—Shpg. wt. 78 lbs..... **96.50**

### 15 Watt In-and-Outdoor System

3. Complete permanent system, ready for immediate use indoors or out—just plug in and operate! You get the 15-watt Deluxe amplifier above—guaranteed for one full year... two 12-inch General Electric 25-watt PM speakers already mounted in horn-type baffles 20" long, 70 feet of speaker cable, Shure model 707A20 microphone (A on page 25) with 20 feet of cable and floor stand. Complete with tubes and necessary instructions.

2N179—Shpg. wt. 85 lbs..... **87.30**

15-watt Permanent In-and-Outdoor System—same as 2N179 above but with Electrovoice model 610-20 microphone (B on page 25) instead of Shure 707A20.

2N180—Shpg. wt. 85 lbs..... **92.75**

### 30 Watt In-and-Outdoor System

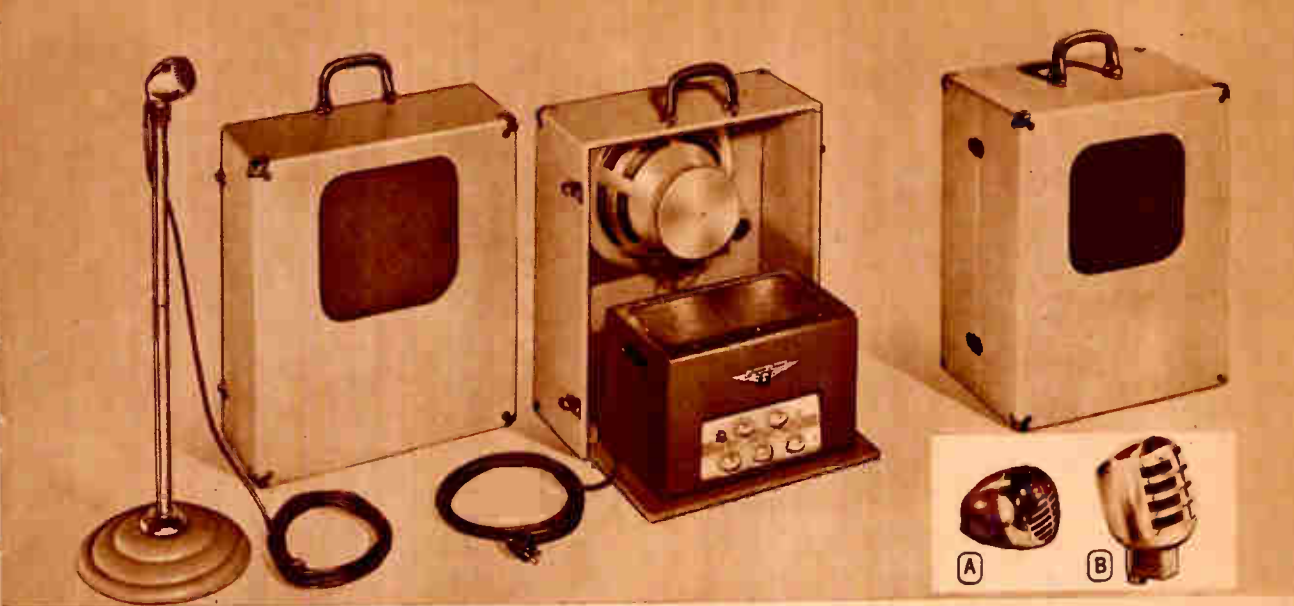
3. Permanent public address system that's easy to install, ready to operate indoors or out! Includes 30-watt Deluxe amplifier above (guaranteed for one full year), two 12-inch General Electric 25-watt PM speakers mounted in steel horn type baffles 20" long, Shure model 707A20 microphone (A on page 25) with floor stand. System comes complete with 70 feet of speaker cable and 20 feet of microphone cable attached. With tubes.

2N181—Shpg. wt. 88 lbs..... **105.35**

30-watt In-and-Outdoor System—same as 2N181 above except with Electrovoice model 610-20 microphone (B on page 25) instead of Shure 707A20.

2N182—Shpg. wt. 88 lbs..... **110.95**

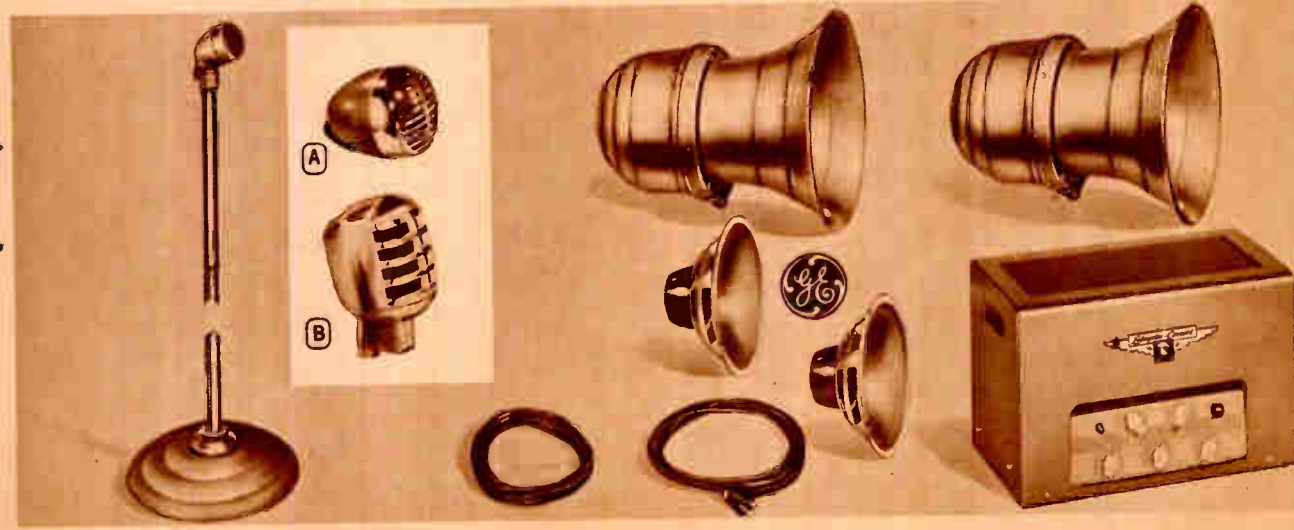




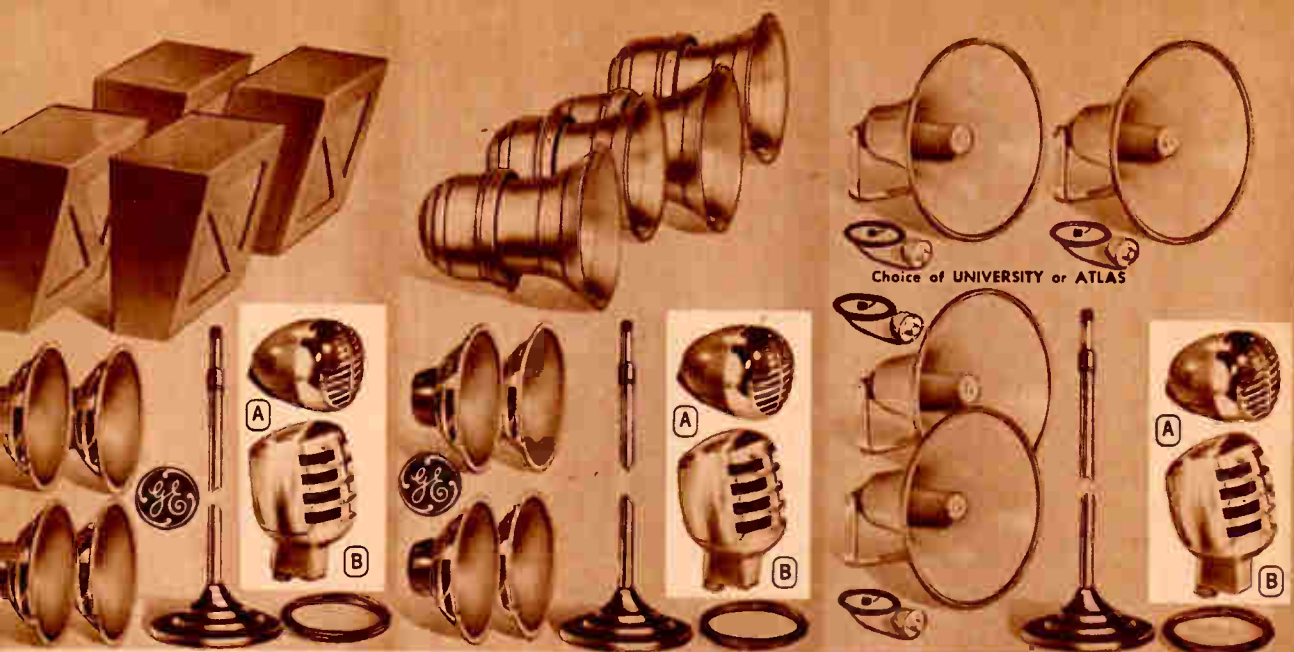
1. LAFAYETTE-CONCORD DELUXE PORTABLE SOUND SYSTEM.....15 WATT, 77.75 up..... 30 WATT, 95.75 up



2. LAFAYETTE-CONCORD DELUXE PERMANENT INDOOR SYSTEM.....15 WATT, 72.90 up..... 30 WATT, 90.95 up



3. LAFAYETTE-CONCORD DELUXE INDOOR-OUTDOOR PERMANENT.....15 WATT, 87.30 up..... 30 WATT, 105.35 up



## LAFAYETTE-CONCORD complete 60 watt hi-power systems'

PLENTY OF POWER, SOUND FOR EVERY PURPOSE—INDOORS AND OUT

### Hi-Power Indoor Sound Systems

Hi-power 60 watt sound systems mean POWER . . . power to cover the entire crowd so that everybody can easily hear . . . power enough that you can blanket entire auditoriums, halls or factories with high level sound reinforcement . . . sound power that brings every note, every whisper to every ear you want to hear.

Conservative 60 watt rating covers up to 1,200,000 cubic feet or audiences of 4000 persons in normal indoor installations. New "Selectone" tone control allows you to select frequency range you desire—deep bass, mellow, crisp or brilliant—at a mere flick of a switch.

System is complete, ready to operate and consists of Model 2N162 Hi-Power 60 watt Amplifier that's guaranteed for one full year, 4 General Electric 12" heavy duty 25 watt speakers each with 35 feet of cable and plugs mounted in handsome brown leatherette covered baffles, Shure 707A20 crystal microphone (A) with 20 feet of cable and plug attached and adjustable floor stand. Complete with tubes and instructions.

2N163—Shpg. wt. 120 lbs. . . . . **139.95**

Same Hi-Power System as 2N163 above, but with Electrovoice 610-20 microphone (B) in place of Shure 707A20.

2N164—Shpg. wt. 120 lbs. . . . . **145.50**

### Hi-Power Outdoor Sound Systems

A powerful system for use in noisy locations. Conservative rating of 60 watts will cover up to 60,000 sq. ft. in such places as boiler factories, large stadiums, armories, auditoriums, outdoor street advertising and political rallies.

Reproducers supplied with this system are suitable for applications where they will not be subject to weather. If your application requires speakers outside for extended periods, use either system 2N167 or 2N168 at right. Save money by buying this system if your installation does not require the speakers to be subjected to constant heavy industrial fumes or be left in the open indefinitely.

System is ready to set up, complete with Model 2N162 Hi-Power 60 watt amplifier guaranteed for one full year, four 12-inch 25 watt General Electric PM speakers already mounted in Kainer all-steel horn-type baffles with 140 feet of cable and plugs attached, to speakers, Shure 707A20 crystal microphone (A) with 20 feet of cable and plug, and adjustable floor stand. Complete with tubes.

2N165—Shpg. wt. 130 lbs. . . . . **169.35**

Same Hi-Power System as 2N165 above, but with Electrovoice 610-20 microphone (B) in place of Shure 707A20.

2N166—Shpg. wt. 130 lbs. . . . . **174.95**

### Deluxe Hi-Power Outdoor Systems

The ideal system for use where the reproducers must remain in the open. Increases the effective wattage of your sound system! The 60 watts of sound power in this system is actually equal to more than 90 watts in other systems because of the high efficiency of the re-entrant type 21-inch reflex projectors and driver units which are included as standard equipment in this hi-power package.

With these non-resonant, storm-proof reproducers you can direct sound over long distances in the open air to cover exactly the areas you desire. All trumpets, brackets and driver units are finished in high lustre Gray enamel. Universal brackets permit mounting atop roofs, light towers, on walls or under eaves of buildings.

Ready to go, complete with 2N162 Hi-Power 60 watt Amplifier that's guaranteed for one full year, four 21-inch projectors, four 25 watt driver units with 140 feet of cable and plug attached, Shure 707A20 crystal microphone (A) with 20 feet of cable and plug, and adjustable floor stand. With tubes.

2N167—Shpg. wt. 132 lbs. . . . . **220.95**

Same system as 2N167 above, but with Electrovoice 610-20 dynamic microphone (B) in place of Shure 707A20

2N168—Shpg. wt. 132 lbs. . . . . **226.50**

## LAFAYETTE-CONCORD 60 watt amplifier — hi-power model

COVERS LARGE AREAS INDOORS OR OUT . . . GUARANTEED FOR ONE YEAR

### Specifications — 60 Watt Hi-Power Amplifier

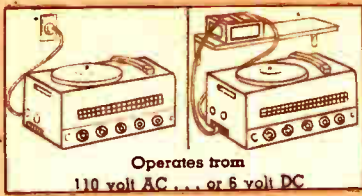
OUTPUT	60 watts normal output, 75 watts peak power.
GAIN	2 Mike Channels 120 db, Phono Channel 85 db.
FREQUENCY RANGE	+ 2 db, 30—12,000 cps.
OUTPUT IMPEDANCE	4, 8, 15, 83 and 333 ohms—70 and 140 volts.
TONE CONTROL	"Selectone" Frequency Range Selector
TUBES USED	2—6SF5, 1—6SL7GT, 2—807, 1—6V6GT plus 1—5Y3GT and 1—5R4GY rectifiers.
HUM AND NOISE LEVEL	. . . . .62 db below 60 watts
LINE DRAIN	. . . . .220 watts at 117 volts, 60 cycle AC.
DIMENSIONS	. . . . .17" wide, 11½" deep, 9¼" high.

Here is an amplifier with sound power for every type of operation indoors or out, packed with newest developments for outstanding performance. We cut our production costs, yet kept quality high to give you more watts per dollar than anywhere else! Cabinet finished in Neutral Gray with Burgundy control panel. For 110-115 volt 60 cycle AC only. With tubes.

2N162—Shipping weight 60 lbs. . . . . **79.38**







Operates from  
110 volt AC... or 6 volt DC

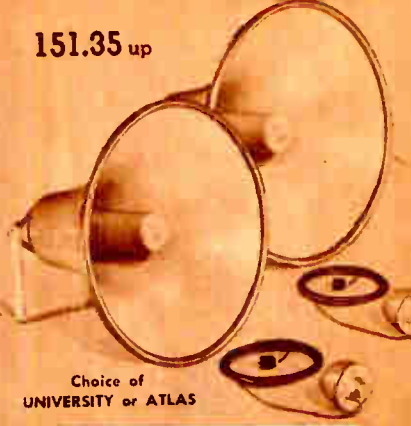


75.26

125.40 up



151.35 up



Choice of  
UNIVERSITY or ATLAS



## LAFAYETTE-CONCORD 18 watt mobile sound systems DUAL PURPOSE SYSTEMS FOR SOUND TRUCK AND INDOOR USE

### Amplifier Specifications

OUTPUT.....18 watts normal, 22 watts peak.  
RESPONSE.....30-12,000 cps  $\pm$  2 db.  
GAIN.....Microphone 118 db, Phono 78 db.  
OUTPUT IMPEDANCE.....4, 8, 15 and  
(70 volts) 277 ohms.  
TONE CONTROL....."Selectone".  
POWER CONSUMPTION.....85 watts at  
110V. AC; 11.5 amps at 6 V. DC.  
TWO INPUTS.....1 Microphone, 1 Phono.  
TUBES.....2—6SF5, 1—6SL7GT, 2—6V6GT,  
and 1—7Z4.  
PHONO.....Built-in, with on-off switch.  
DIMENSIONS.....18" W, 9 1/4" H, 8 1/4" D.

### 18 Watt Mobile Amplifier

Really two amplifiers at the price of one—plenty of power for any job. Can be used mobile or can be taken out of sound truck and operated from regular 110 volt AC mains. Switching from one voltage to the other is automatic—nothing can get out of order to cause a burn-out. Just flip a switch to select frequency range best suited to your operating conditions at the moment. "Idling" control allows you to cut plate voltage at will from a remote position—saves current when used as "Standby" on 6 volt DC operation. Amplifier guaranteed for one year! Finished in Gray wrinkle with Burgundy control panel. Complete with power cables, tubes and built-in phonograph.

2N169—Shpg. wt. 45 lbs. **75.26**

### 18 Watt Mobile Sound System

Now you can take on any public address engagement without having to buy special equipment for mobile and stationary work. This system operates as well from the 110 V mains as it does in your sound truck or in the field from batteries. And the switch-over is entirely automatic.

Built-in phono has switch and gain control—intersperse announcements between or during recordings while rolling down the street. Speakers and projectors take full 18 watt output without blasting or distortion. Turner Han-D-Dynamic microphone (A) has built-in switch so you may leave mike gain control turned up—just push button to talk. System complete with tubes, ready to set up in sound truck or public address installation.

Includes 2N169 Mobile 18 watt amplifier (guaranteed for one year), two G.E. 12-inch PM speakers already mounted in Kainer Deluxe all-steel projector baffles with 70 ft. of speaker cable and plugs attached, Turner Han-D-Dynamic microphone (A) with 20 ft. of microphone cable and plug attached.

2N170—Shpg. wt. 92 lbs. **129.90**

Same system as 2N170 above except with Electrovoice 910-20 crystal microphone (B) in place of Turner Han-D-Dynamic.

2N171—Shpg. wt. 92 lbs. **125.40**

### Deluxe Mobile 18 Watt System

Own this Deluxe mobile sound system and you needn't stop your operations because of bad weather. All-weather, hermetically-sealed projector and driver units defy hardest rain or wind. Your public address continues without interruption—keeps equipment in operation all year round. High efficiency projectors in this system assure added coverage.

Universal mountings permit placing projectors atop sound truck, field tripods, speaker platforms, roofs, or towers to carry sound reinforcement clear and strong to point desired. To move system for inside hall use—speaker lines and microphone cable disconnected by means of plugs to enable you to relocate in minutes.

System is complete—just set up amplifier, mount projectors and plug in! Includes 2N169 guaranteed-for-one-year mobile 18 watt amplifier, two 21" projector horns, two super-power 25 watt driver units with 70 ft. of speaker cable and plug attached, Turner Han-D-Dynamic microphone (A), with 20 ft. of cable and plug attached. Comes complete with tubes.

2N172—Shpg. wt. 84 lbs. **155.85**

Same system as 2N172 above, but with Electrovoice 910-20 microphone (B) instead of Turner Han-D-Dynamic.

2N173—Shpg. wt. 84 lbs. **151.35**

## SMALL AUDIENCE AMPLIFIER—new 6 watt, 6 volt model SMALL, COMPACT . . . OPERATES FROM CAR, TRUCK, OR BUS BATTERY

### Lafayette-Concord Mobile Amplifier

A small, compact amplifying unit especially designed for small audience coverage. Takes less than 23 square inches of instrument panel space in buses or autos. Conservatively rated at 6 watts—is ideal for street announcing in buses, sight-seeing tours, police and safety squad work, street vendors and hucksters, demonstrators, pitchmen and lecturers. Mounts in any position; horizontal, vertical, or lateral in any vehicle. Operates from regular 6 volt auto battery with no special wiring needed. With battery cable, speaker plug and tubes. Guaranteed for one full year.

2N174—Shpg. wt. 15 lbs. **32.25**

### Amplifier Specifications

POWER OUTPUT.....6 watts.  
RESPONSE.....Optimum Speech Range.  
GAIN.....109 db for crystal or dynamic  
high impedance microphone  
OUTPUT IMPEDANCE.....4, 8, 15 ohms  
TUBES USED.....2—6SF5, 1—6L6GA,  
and 1—6X5GT.  
CURRENT DRAIN.....6.5 amps at 6 volts DC.  
MOUNTING.....Universal, by means of two  
movable mounting brackets.  
PLATE VOLTAGE CONTROL.....Jack  
on panel for remote or local control  
of plate supply conserves battery  
current during idling periods.  
DIMENSIONS.....7" high, 3 1/2" wide, 8" deep.  
FINISH.....Gray Wrinkle  
with smooth Burgundy control panel.





① 85.23



## MASCO 35 WATT amplifiers — Underwriters approved EXCLUSIVE! SEPARATE TREBLE AND BASS EQUALIZER CONTROLS

### Specifications, Model MA-35N Amplifier

**POWER OUTPUT**.....35 watts at less than 5% distortion  
**PEAK POWER**.....50 watts  
**INPUTS**.....Four: 3-microphone, 1 phono  
**FREQUENCY RESPONSE**.....± 2 db 50 to 15,000 cps  
**POWER GAIN**.....Microphone, 135 db; Phono, 80.5 db  
**CONTROLS**.....Six: 3-microphone, Phono, Bass, Treble, Separate Power On-Off Switch  
**TUBES**.....1-6SC7, 3-6J7, 3-6SN7GT, 2-6L6G, 1-5U4G, 1-6X5GT (rectifiers)  
**OUTPUT IMPEDANCES**.....4, 8, 15, 125, 250, 500 ohms  
**HUM LEVEL**.....65 db below output level of 35 watts  
**POWER CONSUMPTION**.....190 watts at 117 volts  
**VOLTAGE**.....105-125 volts, 60 cps  
**DIMENSIONS**.....15" x 9½" x 8½" high

### Specifications, Model MA-35RCN Amplifier

Same as the MASCO MA-35N except for record changer and:  
**POWER CONSUMPTION**.....210 watts at 117 volts  
**DIMENSIONS**.....15" x 15" x 10½" high

### Connectors and Plugs for Above Amplifiers

Set of three microphone plugs, one phono plug and two speaker plugs for use with Model MA-35N amplifier.  
**2N304—Shpg. wt. 1 lb.....1.65**

Set of three microphone plugs and two speaker plugs for use with Model MA-35RCN amplifier with record changer top.  
**2N302—Shpg. wt. 1 lb.....1.25**

### MASCO Model MA-35N 35 Watt Amplifier

1. Here is a 35 watt amplifier designed to give maximum efficiency and performance in a wide range of applications. Ideally suited for use in mortuaries, chapels, recreation halls, theatres and night clubs. Its powerful, attention-getting 35 watts of audio output is completely free of hum and distortion.

Separate bass and treble equalizer controls make it possible to attenuate or accentuate the high or low frequencies without affecting the opposite frequency range. Four input channels for three microphones and one phono each with separate volume controls. Excellent frequency response is flat within ± 2 db from 50 to 15,000 cps providing superb reproduction of voice and music. Slanted front control panel has the new Masco Dial-glo indirect panel lighting. Convenient impedance selector switch at the rear of chassis permits easy adjustment for matching any line or voice coil impedance.

Amplifier is housed in attractively styled all-metal cabinet finished in handsome two-tone Blue and Gray Hammertone enamel. Complete with tubes and instructions. Shpg. wt. 32 lbs.  
**2N303—86.97 less 2% cash discount, your net.....85.23**

### MASCO Model MA-35RCN 35 Watt Amplifier

2. The Model MA-35RCN amplifier uses the same chassis as described above but has built-in record changer top. Automatically plays ten 12" or twelve 10" records at one setting. New two post changer design assures smooth, reliable operation. Lightweight precisely-balanced tone arm assures minimum record wear. Shipping weight 52 pounds.  
**2N301—121.32 less 2% cash discount, your net.....118.89**

## 35 WATT SYSTEMS—portable, permanent, indoors or out ALL HAVE MASCO AMPLIFIERS FOR HIGH-FIDELITY REPRODUCTION

### MASCO 35 Watt Portable System

1. Easy to carry, easy to set up—no extra cases to carry around and worry about! The complete system—amplifiers, speakers, microphone and cables—are all housed in one portable case. All components are of sturdy design and construction to withstand abusive use given a portable. Ideal for circuses, carnivals, side shows, campaigns—wherever more than medium power sound reproduction is required.

**Amplifier:** High quality, high-fidelity Model MA-35N 35 watt amplifier above.

**Speakers:** Two heavy duty 25 watt Jensen 12" PM speakers (or equal) each with 25 feet of cable and plug. Seamless cones and dustproof voice coil assure high-fidelity frequency response.

**Microphone:** Astatic semi-directional Model JT-30—designed for public address work. Frequency coverage from 30 to 10,000 cps provides excellent reproduction of voice and music.

**Carrying Case:** Serves as non-resonant speaker baffles. Slide-easy board for mounting amplifier. Attractively covered in durable water-repellent blue fabric. Shpg. wt. 63 lbs.  
**2N300—146.22 less 2%, your net 143.30**

### 35 Watt Indoor System

2. Accessory equipment in this system especially chosen for efficient indoor operation. Ideal for use in noisy areas such as night clubs, clubrooms, theatres, recreation and dance halls.

**Amplifier:** Powerful, noise-penetrating Model MA-35N 35 watt amplifier above.

**Speakers:** Two G.E. 25 watt Alnico V 12" PM speakers with 70 feet of cable and plug attached. Molded one-piece cones assure hi-fidelity response.

**Speaker Baffles:** Two attractively styled sturdily constructed walnut baffles.

**Microphone:** Electrovoice Model 950 Cardax uni-directional microphone (A) provides true cardioid uni-directional pickup and relatively high gain.

**Microphone Stand:** Adjustable from 35 to 60". Positive grip friction clutch locks stand at desired height.

35 Watt Indoor Sound System, complete with tubes and instructions.  
**2N305—Shpg. wt. 80 lbs.....136.65**

35 Watt Indoor System same as above, but with Shure 51 Sonodyne pressure dynamic type microphone (B).  
**2N308—Shpg. wt. 80 lbs.....136.65**

### 35 Watt Outdoor System

3. New and complete system designed especially for outdoor use. Powerful 35 watts audio output makes it ideal for small athletic fields, picnic grounds, amusement parks, beaches, political rallies and outdoor concerts.

**Amplifier:** Newly designed Model MA-35N 35 watt Hi-Fidelity Amplifier above.

**Drivers:** Two hermetically-sealed, super efficient Alnico V reproducers, each with 35 feet of cable and plugs attached. Each: 25 watt capacity.

**Projectors:** Two 21" dia. aluminum projectors provide high efficiency sound conversion and coverage where wanted.

**Microphone:** Electrovoice 950 Cardax (A). Mechanophase provides true cardioid pickup and relatively high gain.

**Microphone Stand:** Adjustable floor stand, positive grip friction clutch.

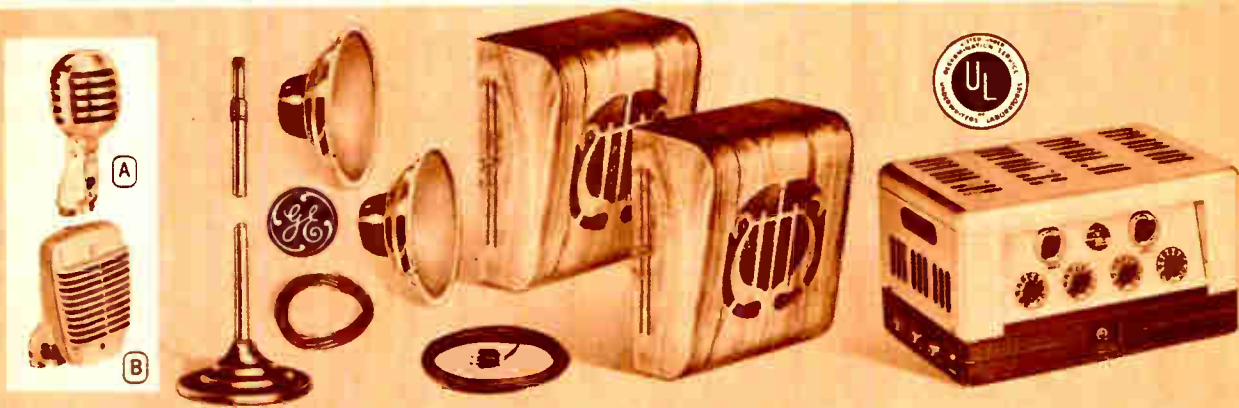
35 Watt Outdoor Sound System, complete with tubes and instructions.  
**2N307—Shpg. wt. 85 lbs.....175.65**

Same outdoor system as above, but with Shure Sonodyne semi-directional pressure dynamic type microphone (B).  
**2N308—Shpg. wt. 85 lbs.....175.65**

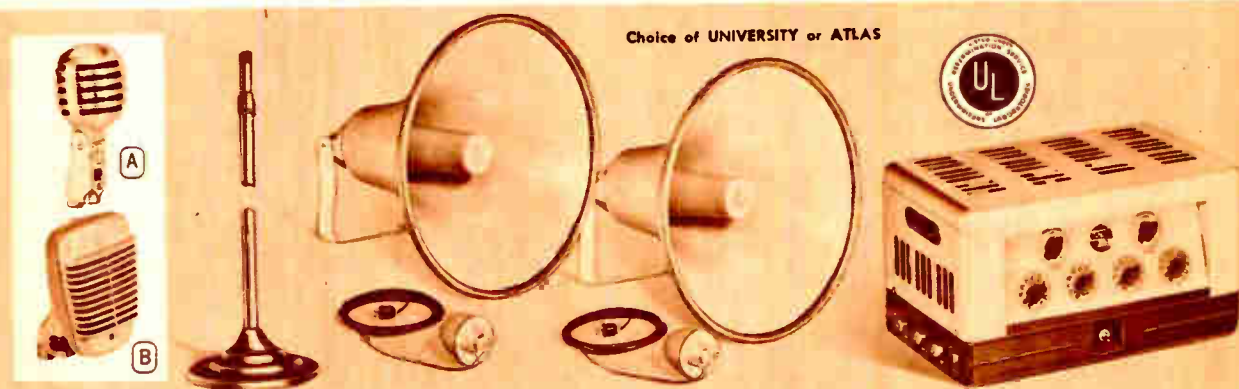




1. MASCO 35 WATT COMPLETE PORTABLE SOUND SYSTEM—146.22 LESS 2%, YOUR NET.....143.30



2. LAFAYETTE-CONCORD 35 WATT INDOOR SYSTEM—COMPLETE, READY TO OPERATE.....136.65



3. LAFAYETTE-CONCORD 35 WATT OUTDOOR SYSTEM—COMPLETE, READY TO OPERATE.....175.65

## NOW AT LAFAYETTE-CONCORD—MASCO SOUND EQUIPMENT!

High Fidelity Amplifiers . . . Heavy-duty Pre-amplifiers and Booster Amplifiers  
 School System Amplifiers . . . Sound Broadcaster . . . Complete Portable Systems

ALL UNDERWRITERS LABORATORIES APPROVED . . . AND ALL FULLY GUARANTEED

### MASCO nationally-known amplifiers

Masco high-fidelity amplifiers—nationally-known for dependable day-in, day-out service under the most rugged operating conditions—originate on drawing boards of expert designers and engineers. Only finest quality components are used . . . and every amplifier is assembled by skilled Union craftsmen. Masco amplifiers are approved by Underwriters Laboratories—your assurance of trouble-free service. Licensed under U. S. patents by Western Electric Company and American Telephone and Telegraph Company, and guaranteed for 90 days against defects in workmanship and materials. All tubes included in purchase price.

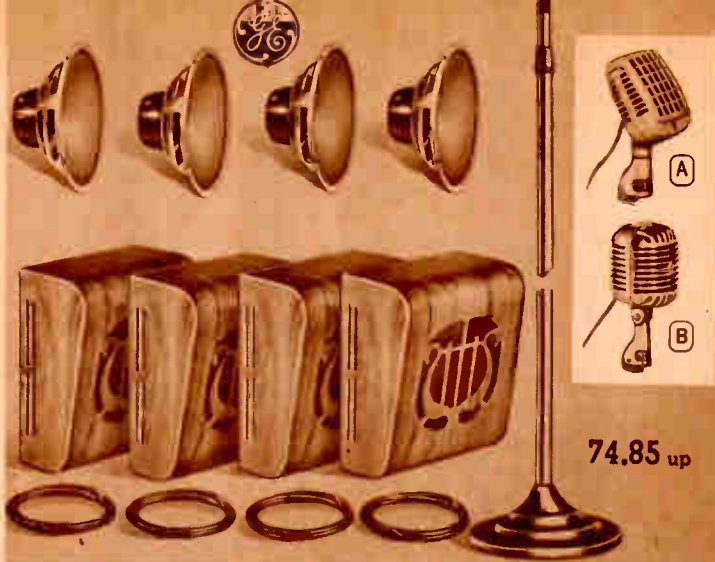
### MASCO all-purpose sound systems

Indoors or out . . . stationary or mobile . . . low or high power—there's a Masco sound system to fit your every need from simple call systems to plant-wide broadcasts and wired music programs. These sound systems are so designed that you can add microphones, power units or reproducers at any later date with a minimum of rearrangement in your present set-up. Masco sound systems are complete—you get all parts, tubes, speakers, cable, plugs and microphone at one purchase price! There are no extras to buy! Masco sound systems are fully guaranteed for 90 days by the RMA warranty against defects in workmanship and materials.



100.28 up

5.59



74.85 up

## MASCO 50 and 75 Watt Amplifiers . . . accessory packages

### HEAVY DUTY UNITS PROVIDE POWERFUL HIGH QUALITY REPRODUCTION

#### Specifications, MASCO 50 Watt Amplifier

**POWER OUTPUT** . . . 50 Watts, Class AB-1—less than 5% distortion  
**PEAK POWER** . . . . . 70 watts  
**FIVE INPUTS** . . . . . 4—microphone, 1—phono  
**FREQUENCY RESPONSE** . . . . . ± 2 DB 50 to 15,000 CPS  
**POWER GAIN** . . . . . Microphone, 136.5 DB; Phono, 82 DB  
**SEVEN CONTROLS** . . . . . 4—microphone, Phono, Bass, Treble,  
 Separate Power On-Off Switch  
**TUBES** . . . . . 1—6SJ7, 4—6J7, 2—6SC7, 4—6L6G, 2—5V4G (rectifiers)  
**OUTPUT IMPEDANCES** . . . . . 4, 8, 15, 125, 250, 500 Ohms  
**HUM LEVEL** . . . . . 67 DB below output level of 50 watts  
**POWER CONSUMPTION** . . . . . 190 watts at 117 volts  
**VOLTAGE** . . . . . 105-125 volts, 60 CPS  
**DIMENSIONS** . . . . . 16" wide x 11" deep x 8 3/4" high

#### MASCO 50 Watt Wide Range Amplifier

More than 50 watts output—70 watts peak! Five inputs include four microphones and one phono for maximum flexibility. Individual bass and treble tone equalizers. Multi-tapped line and voice-coil impedances match any load condition. Negative feedback cancels out hum and distortion. This means you can operate at higher output levels with consistently fine tone quality. Can be rack mounted. Designed for every type of indoor and outdoor applications where high quality public address is required. Has the power and rugged construction to cover large arenas, race tracks, theatres, amusement parks, circuses, plantwide announcements and wired music programs. The excellent reproduction of musical sound makes it a natural for church chime installations. Dependable throughout as a basic unit for systems anywhere large coverage is needed. Suitable speaker and horn arrangements permit high concentration of power at points of high noise level or for uniform coverage of a large area. Fully fused. Underwriters' Laboratories Approved. Model MA50N, with tubes. Shpg. wt. 41 lbs.

2N309—102.33 less 2% cash discount, your net. . . . . **100.28**

#### 50 Watt Amplifier with Remote Control

Similar to the 50 watt heavy-duty amplifier 2N309 above. In addition, has a built-in circuit for remote control of two microphone channels, either independently or simultaneously, when used with Remote Control Unit 2N313 listed below. Approved by Underwriters' Laboratories. Model MA50NR, complete with tubes and instructions. Shipping weight 41 lbs.

2N310—104.28 less 2% cash discount, your net. . . . . **102.19**

#### Dual-Channel Remote Control Box and Cable

For use with 2N310 50 watt amplifier. Compact sound level unit containing two volume controls. Provides independent or simultaneous operation of two microphone channels from remote position. Can be used with up to 2,000 ft. of cable with negligible cable loss. Tone quality not affected—no hum pick-up in control unit or cable. Gray Hammertone finish. 5 3/4" x 2 3/4" x 2 1/4". Shipping weight 3 pounds.

2N313—5.70 less 2% cash discount, your net. . . . . **5.59**

100 ft. cable and plugs for Remote Control Box. Wt. 2 lbs.

2N314—6.45 less 2% cash discount, your net. . . . . **6.32**

Complete set of microphone, phono and speaker plugs for the 50 and 75 watt amplifiers shown above and at right.

2N312—Shipping weight 1 pound. . . . . **1.95**

#### Amplifier Accessory Group for Indoor Use

Includes all accessories you need for a complete, ready-to-go sound system. For use with any amplifier shown on this page. Use in all indoor applications for general area sound coverage. Suitable for auditoriums, theatres, indoor skating rinks, churches, paging, and music systems in factories; industry and hotels. Amplifier accessory group includes: four General Electric Alnico V 12-inch PM speakers, each capable of handling 25 watts without distortion, (already mounted for your convenience in four handsome walnut-finished baffles), 140 feet of speaker cable with both conductors sheathed in a coating of tough, live rubber; Shure "Monoplex" Super Cardioid Crystal microphone (A), 20 feet of microphone cable and plug attached, heavy duty microphone floor stand adjustable from 35 to 60 inches high, with heavily-weighted black wrinkle base and chrome uprights.

2N315—Shipping weight 94 pounds. . . . . **74.85**

Amplifier Accessory Group—contains all items listed above but with Shure "Unidyne" moving-coil dynamic microphone (B) instead of the "Monoplex" crystal microphone.

2N316—Shipping weight 96 pounds. . . . . **87.90**

#### Specifications, MASCO 75 Watt Amplifier

**POWER OUTPUT** . . . 75 Watts, Class AB-2—less than 5% distortion  
**PEAK POWER** . . . . . 125 watts  
**FIVE INPUTS** . . . . . 4—microphone, 1—phono  
**FREQUENCY RESPONSE** . . . . . ± 2 DB 50 to 15,000 CPS  
**POWER GAIN** . . . . . Microphone, 138 DB; Phono, 83.5 DB  
**SEVEN CONTROLS** . . . . . 4—Microphone, Phono, Bass, Treble,  
 Power On-Off Switch  
**TUBES** . . . . . 4—6J7, 2—6SC7, 2—6V6GT, 4—6L6G, 1—5Y3GT,  
 2—5V4G (rectifiers)  
**OUTPUT IMPEDANCES** . . . . . 8, 15, 60, 125, 250 ohms  
**HUM LEVEL** . . . . . 68 DB below output level of 75 watts  
**POWER CONSUMPTION** . . . . . 260 watts at 117 volts  
**VOLTAGE** . . . . . 105-125 volts, 60 CPS  
**DIMENSIONS** . . . . . 17" wide x 12" deep x 8 3/4" high

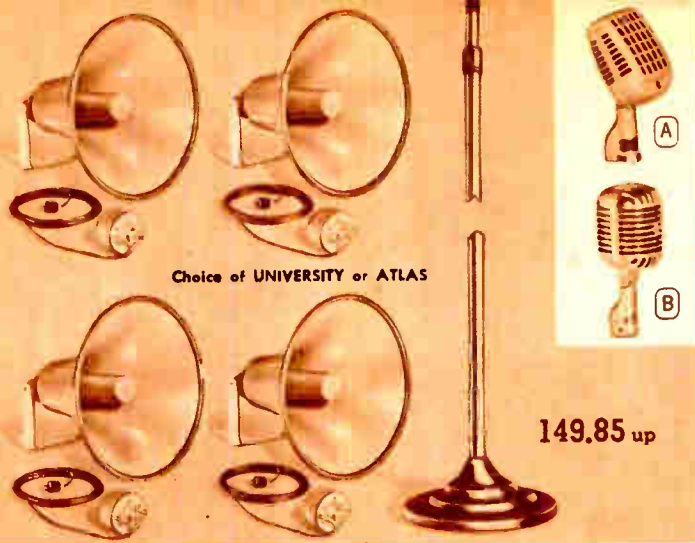
#### MASCO Heavy-duty 75 Watt Sound Amplifier

More than 75 watts of "clean" sound power at less than 5% distortion—125 watts peak power for those emergencies. May be used in vertical racks as well as table top layouts in conjunction with the outdoor accessory group shown on the opposite page to cover large outdoor or indoor areas such as football fields, baseball diamonds, motor speedways, airports, drydocks, and heavy construction jobs. When used with the indoor accessory group shown above, this amplifier will ideally cover paging, announcing and sound reinforcement jobs in steel mills, cotton mills, factories, theatres, and indoor skating rinks and arenas.

Electronic mixing of four microphone and one phono input channels with a separate control for each. Individual bass and treble tone equalizers permit adjustment to varied acoustical conditions and locations, as well as special effects. Impedance selector switch is built-in at no extra cost, to simplify installation or changing of speakers or lines. Separate plate and screen voltage supplies for utmost stability and maximum power tube life. Tested and approved by Underwriters' Laboratories—your assurance of years of safe, trouble-free operation. Licensed by Western Electric Company and American Telephone and Telegraph Company. Model MA75N, complete with tubes and instructions. Shipping weight 63 lbs.

2N311—129.00 less 2% cash discount, your net. . . . . **126.42**





Choice of UNIVERSITY or ATLAS

149.85 up



## HEAVY DUTY UNITS for high power, large area coverage

### ACCESSORY GROUPS . . . MASCO PRE-AMPLIFIER, BOOSTER AMPLIFIERS

#### High Power Amplifier Accessory Group

For efficient coverage of athletic fields, race tracks, stadia, roller skating rinks, plant broadcasts, church chimes, carnivals, outdoor meetings, armories, auditoriums, heavy construction jobs and other high noise level locations. Components selected for ability to "take it" under most rigorous conditions of weather and usage. Suitable for use with amplifiers or boosters and pre-amplifiers on these two pages. Reproducers make it possible to beam sound over great distances through the open air, allow you to operate at lower volumes, yet cut through background noise. Includes: four 21-inch all-weather aluminum projectors; four hermetically sealed, weatherproof driver units, each capable of handling 25 watts without distortion; 140 feet of rubber-covered speaker cable; Shure "Monoplex" Cardioid Crystal microphone (A); 20 feet of microphone cable with plug attached; and adjustable heavy-duty microphone floor stand.

2N322—Shpg. wt. 84 lbs. . . . . **149.85**

Same Outdoor Group as above, but with Shure "Unidyne" Dynamic microphone (B) in place of the "Monoplex" Crystal.

2N323—Shpg. wt. 84 lbs. . . . . **162.90**

#### Specifications, 75 Watt Booster Amplifier

**POWER OUTPUT** . . . . . 75 Watts, Class AB-2—less than 5% distortion  
**INPUTS** . . . . . 500 Ohms balanced or unbalanced line  
**FREQUENCY RESPONSE** . . . . . ± 2 DB 50 to 15,000 CPS  
**POWER GAIN** . . . . . 47.5 DB  
**CONTROLS** . . . . . Master Gain, Separate On-Off Switch  
**TUBES USED** . . . . . 1—6SN7GT, 2—6V6GT, 4—6L6G, 1—5Y3GT, 2—5V4G (rectifiers)  
**OUTPUT IMPEDANCES** . . . . . 8, 15, 60, 125, 250 Ohms  
**HUM LEVEL** . . . . . 68 DB below output level of 75 watts  
**POWER CONSUMPTION** . . . . . 250 watts at 117 volts  
**VOLTAGE** . . . . . 105-125 Volts, 60 CPS  
**CABINET, STEEL** . . . . . Gray Hammertone finish  
**DIMENSIONS** . . . . . 17" wide x 12" deep x 8½" high

#### MASCO Heavy Duty 75 Watt Booster Amplifier

2. Designed especially for continuous high power, heavy duty operation. Full output of 75 undistorted watts from only 1.45 volts RMS with balanced line or .8 volts RMS with unbalanced line. This high sensitivity permits several boosters to be driven from same source. Chassis construction is such that rack mounting is simplified, and connections are easily made. Includes master gain control, on-off switch and pilot light. Recommended for use with driver amplifier and sound system accessory group on this page to form a complete and powerful sound system. Cabinet finished in Hammertone Gray. Model MB-75, approved by Underwriters' Laboratories, complete with tubes and instructions. Shipping weight 57 pounds.

2N319—97.68 less 2% cash discount, your net. . . . . **95.73**

Kit of four output plugs for 50 and 75 watt booster.

2N320—Shipping weight 1 pound. . . . . **72c**

**Low impedance input conversion transformer** for all MASCO amplifiers. Multi-alloy shielded. Swivel-ball joint mounting for complete rotation and tilting. Primary impedances 50 ohms unbalanced line; 200 ohms or 500 ohms balanced line. Type IN-525. Shipping weight 3 pounds.

2N321—12.60 less 2% cash discount, your net. . . . . **12.35**

#### Specifications, MASCO Driver Pre-Amplifier

**POWER OUTPUT** . . . . . 1.9 Volts at 500 Ohms—less than 5% distortion  
**INPUTS** . . . . . Six: 4—microphones, 2—phono or radio  
**TONE CONTROLS** . . . . . 9 DB Bass Boost, 10 DB attenuation at 50 CPS, 10 DB Treble Boost, 12 DB attenuation at 10,000 CPS  
**FREQUENCY RESPONSE** . . . . . ± 2 DB 50 to 15,000 CPS  
**POWER GAIN** . . . . . Microphone: 97 DB; Phono: 65 DB  
**TUBES USED** . . . . . 1—6SL7GT, 5—6J7, 1—6SN7GT, 1—6X5GT (rectifier)  
**OUTPUT IMPEDANCE** . . . . . 500 Ohms balanced or unbalanced line  
**HUM LEVEL** . . . . . 35 DB below zero level of .006 watts  
**POWER CONSUMPTION** . . . . . 40 Watts at 117 Volts  
**VOLTAGE** . . . . . 105-125 Volts, 60 CPS  
**DIMENSIONS** . . . . . 15" wide x 8½" deep x 8¾" high

#### MASCO Pre-Amplifier and Driver—6 Inputs

1. Designed for use with 50 and 75 watt booster amplifiers above, but suitable for mixing and adding additional microphone input channels to low gain and booster amplifiers. Can be used in vertical rack or operating console. Four high-gain microphone inputs permit mixing four hi-impedance microphones. Separate bass and treble controls adjust to acoustics of installation, or create special effects. Front panel includes on-off switch with pilot light. Fused for protection. Model DR-5, finished in Blue and Gray Hammertone, complete with tubes and instructions. Shipping weight 20 pounds.

2N317—48.93 less 2% cash discount, your net. . . . . **47.95**

Set of input and output plugs for above pre-amplifier.

2N340—Shipping weight 1 pound. . . . . **1.95**

#### Specifications, MASCO 50 Watt Booster Amplifier

**POWER OUTPUT** . . . . . 50 Watts, Class AB-1—less than 5% distortion  
**PEAK POWER** . . . . . 70 Watts  
**INPUTS** . . . . . 500 Ohms balanced or unbalanced line  
**FREQUENCY RESPONSE** . . . . . ± 2 DB 50 to 15,000 CPS  
**POWER GAIN** . . . . . 46 DB  
**CONTROLS** . . . . . One: master gain, separate On-Off Switch  
**TUBES USED** . . . . . 2—6SN7GT, 4—6L6G, 2—5V4G (rectifiers)  
**OUTPUT IMPEDANCES** . . . . . 4, 8, 15, 125, 250, 500 Ohms  
**HUM LEVEL** . . . . . 60 DB below output level of 50 Watts  
**POWER CONSUMPTION** . . . . . 185 Watts at 117 Volts  
**VOLTAGE** . . . . . 105-125 Volts, 60 CPS  
**DIMENSIONS** . . . . . 17" wide x 12" deep x 8½" high

#### 50 Watt Booster Amplifier—Zero-Level Input

2. Designed for parallel operation. Use one or several boosters—needs driving power of only 1.45 volts RMS with a balanced line. Adaptable for line or bridging. All connections made at back of chassis. Front panel contains master gain control for use when more than one booster is in circuit; on-off switch, indicating light. For use in or out of rack. Fused circuit. Model MB-50N, finished in Blue and Gray Hammertone, complete with tubes. Shipping wt. 41 lbs.

2N318—75.15 less 2% cash discount, your net. . . . . **73.65**

Set of 4 output plugs for 50 or 75 watt booster amplifiers.

2N320—Shpg. wt. 1 lb. . . . . **72c**



90.08 up



51.90

## MOBILE UNITS—25 watt amplifiers and accessory package NEW MASCO AMPLIFIERS OPERATE ON AC OR BATTERY WITH LOW DRAIN

### MASCO 25 watt Amplifier Specifications

**POWER OUTPUT**.....25 watts, less than 5% distortion, 40 watts Peak.  
**INPUTS**.....Four: 3 microphone, 1 phono.  
**FREQUENCY RESPONSE**.....± 2 db 50 to 15,000 CPS.  
**POWER GAIN**.....Microphone, 133.5 db; Phono, 79 db.  
**CONTROLS**.....Six: 3 microphone, Phono, Bass, Treble, Separate Motor Switch and Battery-saver Switch.  
**TUBES**.....4—6J7, 1—6SL7GT, 1—6SC7, 2—6L6G, 2—7Z4 (rectifiers).  
**OUTPUT IMPEDANCES**.....4, 8, 15, 125, 250, 500 ohms.  
**HUM LEVEL**.....AC: 64 db below output of 25 watts.  
**POWER CONSUMPTION**.....AC: 145 watts @ 117 V (includes phono motor). DC: 23 Amps @ 6 V (battery) (includes phono motor).  
**VOLTAGE**.....105-125 V, 60 cps AC or 6 V DC (storage battery).

### LAFAYETTE-CONCORD Sound Accessory Package

Everything you need for a complete ready-to-operate mobile sound system except amplifier—two 12" G.E. Alnico V PM speakers already mounted in Deluxe all-steel trumpet baffles designed particularly for outdoor use to direct sound and carry it farther than conventional type baffles. Heavy duty speakers are capable of handling 25 watts output each, and each has 35 feet of cable and plug attached. Shure 707A20 semi-directional microphone in this package is designed for use with public address systems—gives excellent frequency response suitable for voice or music reproduction. Microphone floor stand adjusts from 35" to 60", positive grip friction clutch locks at desired height.  
 2N337—Shipping weight 56 pounds..... 51.90

### MASCO 25 Watt Mobile Amplifier for Battery or AC Operation

Newly designed 25 watt mobile amplifiers in four types to meet all possible needs and applications—ideally suited for election campaigns and rallies. Units operate with equal efficiency on AC power or 6 volt battery—DC operation is ripple-free, resulting in undistorted sound. Battery-saver switch shuts off vibrator during intermissions, reduces battery drain to a minimum. Extra heavy duty dual vibrator maintains steady voltage and frequency. Four input channels for three microphones and one phono—each with separate volume control. Circuits are double safety fused in compliance with Underwriters Laboratories. Each unit has separate cables, fitted with heavy plugs and receptacles for each voltage supply. Masco 25 watt mobile amplifiers come complete with tubes and instructions.

Model MC-25N, 25 Watt Mobile Amplifier, plain top.  
 2N331—Shpg. wt. 39 lbs. 91.92 less 2%, your net..... 90.08  
 Model MC-25PN. As above but with phono top.  
 2N332—Shpg. wt. 44 lbs. 100.92 less 2%, your net..... 98.90  
 Model MC-25PC. Same as 2N332, but with hinged top.  
 2N333—Shpg. wt. 46 lbs. 118.02 less 2%, your net..... 115.66  
 Model MC-25RC. Same as 2N331, but with two-post automatic record changer.  
 2N334—Shpg. wt. 52 lbs. 144.27 less 2%, your net..... 141.38  
 2N351—Connector Kit for 2N331..... 1.65  
 \*2N341—Connector Kit for 2N332-3-4..... 1.25

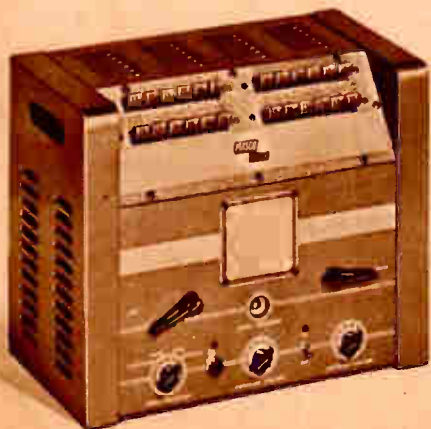
## SCHOOL SYSTEM AMPLIFIERS—new Masco 28 watt models IDEAL FOR INSTITUTIONS—SOUND POWER COVERS UP TO 24 ROOMS

Newly designed to fill the needs of educational institutions, hospitals and hotels—Underwriters Laboratories Approved. Important radio programs and phonograph music can be heard in one, several or all rooms at once. Master switch permits simultaneous paging. Can be used for up to 24 rooms with ample power for each speaker. Calls can be originated from any

room to master station. Volume level indicator on master station for correct volume setting. Ample gain provided for external connection of microphone, phono or radio. System uses balanced line for simplicity of installation. Shpg. wt. 37 lbs. With tubes.  
 2N324—6 room model—97.80 less 2%, your net..... 95.84  
 2N325—12 room model—100.80 less 2%, your net..... 98.78  
 2N326—18 room model—103.80 less 2%, your net..... 101.72  
 2N327—24 room model—106.80 less 2%, your net..... 104.66

### Specifications for School System Amplifier

**POWER OUTPUT**.....28 watts, class AB-1 at less than 5% distortion.  
**PEAK POWER**.....40 watts.  
**INPUTS**.....External Microphone, phono and radio provision, built-in intercommunication speaker.  
**FREQUENCY RESPONSE**.....± 2 db 50 to 15,000 CPS.  
**POWER GAIN**.....Microphone 130 db; phono 85 db.  
**CONTROLS**.....Separate in and out volume controls; Function selector, "Talk-listen," Master Call, Station selector, On-off switches. Volume level indicator control.  
**TUBES**.....1—6SC7, 1—6SL7GT, 1—6SN7GT, 2—6L6G, 1—6U5, 1—5V4G (rectifier).  
**OUTPUT IMPEDANCES**.....80 ohm balanced line, constant voltage.  
**HUM LEVEL**.....64 db below output level of 28 watts.  
**POWER CONSUMPTION**.....145 watts at 117 volts.  
**VOLTAGE**.....105-125 volts, 60 CPS.  
**CABINETS (Metal)**.....Brown Hammertone, 16" x 9½" x 13" high.







## MASCO 25 watt mobile system . . . LAFAYETTE-CONCORD accessories COMPLETE TWO-SPEAKER PORTABLE SYSTEM . . . DELUXE ALL-WEATHER UNITS

### MASCO 25 Watt Portable Mobile System

It's portable . . . it's mobile . . . it operates anywhere on either 117 volt 60 cycle AC or 6 volt storage battery. Complete system with all necessary units to set it up in operation are housed in one easy-to-carry portable case. Powerful 25 watt audio output makes system ideal for amusement parks, carnivals, election campaigns, and traveling evangelists. Consists of:

**Amplifier:** The heart of this powerful, high quality portable system is the newly designed Masco Model MC-25PN 25 watt mobile amplifier with phono top—described on page 32.

**Speaker:** Two heavy duty 12" Jensen PM speakers (or equal) each supplied with 25 feet of cable and plugs. Speakers use the highly efficient Alnico V magnets and are especially designed for use with medium power public address systems. Molded one-piece seamless cones and dustproof voice coil construction assure distortionless high fidelity response.

**Microphone:** Astatic JT-30 semi-directional microphone with cable and plug. High quality, ruggedly constructed, designed for use with public address systems. Excellent frequency response suitable for voice and music reproduction.

**Split Carrying Case:** Designed for good tone quality, with two speakers mounted within. Durable water-repellant Blue fabri-koid covering, electro-locked Gray grille. Has slide-easy board with dome silencers for mounting amplifier.

Model MAC-25PN, with tubes. Shpg. wt. 72 lbs.

2N335—156.72 less 2%, your net..... **153.59**

### LAFAYETTE-CONCORD Deluxe Accessory Package

For use with any amplifier—includes all accessories necessary for setting up an outdoor sound system except the amplifier. Accessory package is offered at a low dollar-saving price, with the added advantage of choosing the amplifier best suited to the needs of your particular installation. With proper choice of amplifier, package is ideal for small athletic fields, beaches, sound trucks and outdoor rallies or concerts. Package includes:

**Drivers:** Two heavy duty 25 watt Alnico V driver assemblies, hermetically sealed to withstand continued outdoor use under all weather conditions. Audio response range is sufficient to provide excellent reproduction of both voice and music. Each driver unit supplied with 35 feet of cable and plugs.

**Projectors:** Two large 21-inch diameter all-aluminum projectors . . . directional characteristics provide high efficiency sound conversion and coverage where it is wanted.

**Microphone:** Uses the Shure Model 707A20 semi-directional crystal microphone, supplied with 20 feet of shielded cable and plug. Designed for use with public address systems, it is sturdily constructed to withstand above average use. Frequency range provides excellent reproduction of both voice and music. Attractive Pearl Gray finish with chrome grille.

**Microphone Stand:** Heavy duty adjustable floor stand can be varied in height from 35" to 60" quickly and easily. Positive grip friction clutch locks stand at desired height.

2N336—Shpg. wt. 74 lbs..... **77.85**

## SOUND BROADCASTERS—Masco 50 watt industrial models DESIGNED FOR CONVENIENCE, WITH EVERYTHING IN ONE CABINET

Newly designed all-in-one unit for industrial and institutional use. 50 watt amplifier, radio tuner, record changer, monitor speaker, and zone selector switch all mounted in one cabinet, with controls on front panels for convenient operation. Ideal for paging or phono-radio operation at airports, department stores, factories, auditoriums, hospitals.

Heavy duty 50 watt amplifier provides powerful room-filling audio output at less than 5% harmonic distortion. Four input channels . . . two for microphone, one each for built-in radio and record changer. Each input channel has separate volume control. Frequency response  $\pm 2$  db from 50 to 15,000 cps.

Six position zone selector switch permits broadcasting to one, several or all sections covered by amplifier. Master switch provided for making calls to all stations at one time. Built-in self-powered FM-AM superhet tuner provides reception on entire standard broadcast and FM bands. Two-post record-saving record changer. Lightweight balanced pickup arm employs high fidelity crystal cartridge. Built-in monitor speaker gives operator complete control and knowledge of what is being broadcast at all times. Model BR-50 with tubes. Shpg. wt. 120 lbs.

2N328—270.00 less 2% your net..... **264.60**

Model BR-50R—same as 2N328, but with built-in microphone relay for program break-ins operated by external microphone switch. Also has built-in tone signal oscillator for time signals or code calling signals, can be operated manually at control board or externally by time clock. Shpg. wt. 125 lbs.

2N329—297.00 less 2%, your net..... **291.06**

2N330—For one additional built-in zone selector switch add 4.50 less 2%, your net..... **4.41**

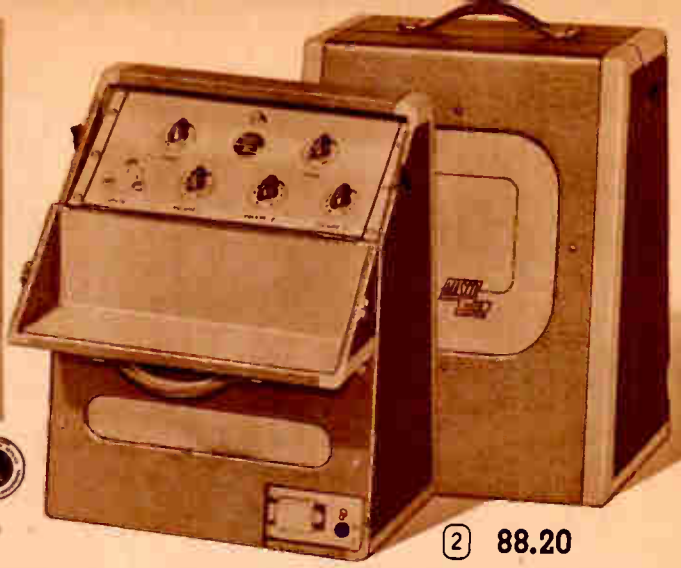
### Specifications, Masco Sound Broadcaster

**POWER OUTPUT**.....50 watts, class AB-1 at less than 5% distortion.  
**PEAK POWER**.....70 watts.  
**GAIN AND INPUTS**.....2-microphone, 125 db built-in phono and radio, 85 db.  
**FREQUENCY RESPONSE**..... $\pm 2$  db, 50 to 15,000 cps.  
**TUBES** ....2—6J7, 1—6SJ7, 1—6SN7, 4—6L6G, 2—5V4G (rectifiers).  
**OUTPUT IMPEDANCE**...125 ohms, 87 volts at 50 watts, 4, 8, 15, 250, and 500 ohms.  
**HUM LEVEL**.....67 db below 50 watts  
**POWER CONSUMPTION**.....265 watts.  
**VOLTAGE**.....105-125 volts 60 cps.  
**DIMENSIONS**.....22" x 16½" x 42" high.





① 30.72



② 88.20



Ⓐ 5.25

Ⓑ 6.85



## MUSICAL INSTRUMENT AMPLIFIERS — Masco portable models

### NEW DESIGNS . . . BUILT-IN SPEAKERS . . . BELL-CLEAR REPRODUCTION

#### 5 Watt Musical Instrument Amplifier

1. Complete musical instrument amplifier system in one light-weight easy-to-carry portable case. Ideally suited for musicians, singers, lecturers, circus barkers and other entertainment applications. High quality, high fidelity amplifier and large heavy-duty 8" PM speaker insures bell-clear musical reproduction. Full 5 watts audio output at less than 5% harmonic distortion for powerful, room filling volume. Extremely low hum level 60 db below rated output assures completely hum-free operation. Power gain through amplifier of 105 db. Dual channel inputs accommodate any standard electronic instrument pickup or microphone . . . permit mixing of singing with orchestra or other instrumental music. Tubes used: one 6V6GT, one 6SL7GT, plus one 6X5GT rectifier. Circuits are safety fused in compliance with Underwriters Laboratories specifications. Hardwood carrying case is sturdily constructed and attractively covered in two-tone blue and gray fabrikoid. Overall carrying case dimensions: 11 3/4" x 13" x 8 1/2". For 117 volt 60 cycle AC only. Complete with tubes. Shipping weight 15 pounds.

2N338—31.35 less cash discount, your net.....**30.72**

#### 18 Watt Musical Instrument Amplifier

2. Designed for the discriminating musician, this new 18 watt music amplifier offers all the latest features for the finest musical instrument reproduction. Individual bass and treble tone controls vary the over-tones from crisp, clear melody to rich mellow bass. Amplifier's exclusive circuit designs provide 18 watts of audio output at less than 5% total harmonic distortion. Heavy duty 12" speaker mounted in acoustically designed case gives lifelike reproduction and eliminates false harmonics. Frequency response plus or minus 2 db from 50 to 12,000 cps. Peak power output is 27 watts. Power gain through amplifier is 110 db. Hum level 62 db below output level of 18 watts. Three instruments or microphones, or any combination may be used separately or simultaneously by means of three separate volume controls. Voice and music may be combined with individual volume control of each. Sturdy hardwood case, covered in two-tone blue and gray fabrikoid. Tubes used: 3—6SF5, 1—6SJ7, 1—6SL7GT, 2—6L6G, 1—5V4G (rectifier). 15 3/4" x 18 3/4" x 9 5/8". With tubes. For 105-125 volt 60 cycle AC only. Shpg. wt. 36 lbs.

2N339—90.00 less cash discount, your net.....**88.20**

#### Musical Contact Microphones for Use with Any Amplifier

Hi-impedance pickup designed for use with any musical instrument. Easily installed without special strings or changes. The brilliant rounded tone resulting from the use of these pickups far exceeds the power of the musical instrument alone.

Enclosed with soft non-marring material. 8-foot cable.

N13746—(A) Less volume control. Shpg. wt. 4 lbs.....**5.25**

N13745—(B) With volume control. Shpg. wt. 4 lbs.....**6.85**

## HOW TO SELECT THE CORRECT SOUND SYSTEM

#### Have Enough Power To Do The Job

Choose an amplifier 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 at right for recommended wattage. 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, pneumatic riveters, steel mills), large stadiums, outdoor street advertising and announcing.

#### Be Sure To Use Sufficient Wattage

Seating Capacity	Area Coverage		Required Watts		
	Indoors	Outdoors	Quiet	Normal	Noisy
750	280,000 cu. ft.	15,000 sq. ft.	7.5	11.25	15
1500	600,000 cu. ft.	30,000 sq. ft.	15	22.5	30
3000	1,200,000 cu. ft.	60,000 sq. ft.	30	45	60
4500	1,800,000 cu. ft.	90,000 sq. ft.	45	67.5	90
6000	2,400,000 cu. ft.	120,000 sq. ft.	60	90	120
7500	3,000,000 cu. ft.	150,000 sq. ft.	75	112.5	150
9000	3,600,000 cu. ft.	180,000 sq. ft.	90	135	180

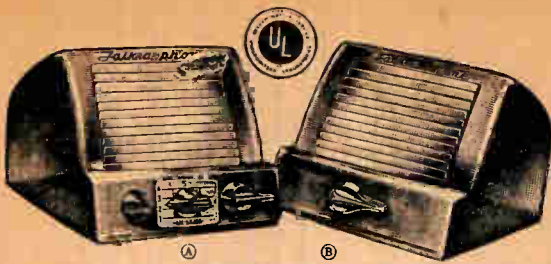
#### Be Sure To Use The Right Microphone

Different types of microphones are designed to perform specific jobs best. Select the one best suited to your needs. Crystal microphones are least expensive, usually have good frequency range, can be used for reproduction of speech or music. They are good for all ground work in or outdoors except where temperatures of 120 degrees or more are encountered. Dynamic microphones are more rugged, most satisfactory for general purposes indoors or out, generally more expensive than crystal microphones. They are not affected by climate. Fidelity is the accuracy with which a microphone reproduces sound. The wider the range, the more normal the sound from the speakers. Be sure the fidelity of your microphone is high enough to give you the quality of reproduction you desire.

#### Select And Locate Speakers As To Need

Total wattage ratings of speakers should be equal to or greater than wattage output of amplifier. All speakers shown in this book have power handling rating indicated in watts. Sound can be distributed by wire more easily than it can by air. Consequently, an announcement or call made into a microphone at a location such as a telephone switchboard can be conveyed to various selected locations in a large building by merely placing the speaker in the proper area. Remember, it is best to use more speakers in order to distribute sound evenly throughout the area rather than have it blast from one speaker and thereby cause unnatural effects. **Free Technical Service.** Lafayette-Concord's skilled engineers will help solve your problems. Write for expert advice—free!





**NEW TALK-A-PHONE INTERCOMMUNICATION SETS**

**Master Selective System.** An excellent intercom system for use where one person must be in contact with personnel at several locations. Two models available. LM-5 Master has capacity of 5 sub-stations, LM-10 will carry 10 sub-stations. The master station can talk individually with any one of the Sub-Stations or all at one time. Famous "Silent Feature" permits connecting "privately" so sub-stations are silent except when switch is operated, or "supervisory" so Master always hears Sub-Stations. Sub-Stations can originate calls, but need not operate switch and can reply from a distance when "supervisory" connection is used. The sub-stations do not consume electric current and can be installed anywhere you wish.

Walnut finished bakelite cabinets measure 8 1/4"x6 1/4"x7 1/2". Master Station operates universally on 110-115 volts AC or DC. Tested and approved by Underwriters' Laboratories. See Fig. 1 for cable measuring information.

**A. Model LM-5. Master Selective Station** with tubes and instructions. 26N20117—Shpg. wt. 8 lbs. .... **22.50**

**Model LM-10. Master Selective Station** with capacity of 10 LR-3 Sub-Stations. With tubes and instructions. 26N20120—Shpg. wt. 8 lbs. .... **29.95**

**B. Model LR-3. Sub-Station** for either above. Uses no current. 26N20118—Shpg. wt. 4 lbs. .... **7.50**

Wire for connecting Master Station to Sub-Stations. Three Conductor cable. 19N16014—Per ft. .... **3c**

**Super Selective System,** consists of all Master units. Two models available. LS-5 for up to 5 stations, LS-10 for up to 10 stations. Extreme flexibility of intercommunication whereby any station in the system can call any other and carry on a two-way conversation. You can begin with two masters. The LS-5 can accommodate two private two-way conversations at the same time, the LS-10 up to 5 separate two-way conversations. All Master Stations are strictly private. Stations cannot listen in on each other, nor can a third station listen in on a conversation of two others. Volume control adjustable at each unit, provides for the incoming volume to be adjusted from a bare whisper to full room volume. Powerful amplifier permits operating stations up to 2000 ft. apart. Saves cable expense as no return cable needed from last to first unit. Power need not be on in the station being called.

Walnut finished bakelite cabinets measure 8 1/4"x6 1/4"x7 1/2". Operate universally on 110-115 volts AC or DC. Fully tested and approved by Underwriters' Laboratories for intercommunication applications in offices, plants, stock rooms, restaurants and hundreds of similar uses. Operates for a fraction of a cent a day.

**A. Model LS-5 Five-Station Master.** Complete with tubes and instructions. 26N20119—Shpg. wt. 8 lbs. .... **22.50**  
Cable to connect Five-Station Masters. 19N16015—6 conductor, per ft. .... **10c**

**Model LS-10 Ten-Station Master.** 26N20121—Shpg. wt. 8 lbs. .... **29.95**

Cable for connecting Ten-Station Masters. 19N16007—11 conductor, per ft. .... **20c**

**Complete Two-Way Intercom System.** Saves steps, time. Designed especially for use on the farm, in professional offices, stores, and in the home. Now you can keep tuned to Baby's every move in the nursery through the "Supervisory Feature." No more getting up to see if the baby is all right.

Affords private or supervisory use, according to manner in which units are connected. Supervisory carries every sound to Master station even though originating as far as forty feet from the Sub-Station. When connected privately, Master cannot listen in on Sub-Station, and by the Talk-A-Phone "Silent Feature," shuts out at the Master Station all sounds originating at the Sub-Station, yet permits the Sub-Station to originate calls. Adjusts from a mere whisper to full room volume. System consists of one Master unit, a Sub-Station and fifty feet of the proper cable for connecting. Complete with tubes and instructions. Additional cable is available in lengths to 2000 feet. Operates universally on 110-115 volts AC or DC. Absolutely safe for use in all homes, offices, restaurants, and on the farm. Fully tested and approved by Underwriters' Laboratories.

Attractive Walnut finished bakelite cabinets measure 8 1/4"x6 1/4"x7 1/2". Sub-Station does not use house current—install anywhere you wish, regardless of electrical outlets at sub-station location. 26N20116—Shpg. wt. 10 lbs. .... **23.50**

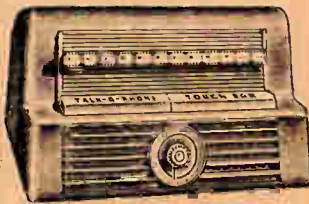
Extra cable for the above system. 19N16014—Per ft. .... **3c**

**NEW TALK-A-PHONE "CHIEF FORTY-NINER" INTERCOM SETS**

Take it easy—let a thrifty, swift-as-light electronic messenger carry your orders. Speed production by speaking privately to anyone within a 3000 ft. radius with the assurance that others cannot "tune in" on your conversation. You can hold private conferences—yet never leave the office! Call one, or all stations simultaneously. Up to six two-way conversations may be carried on at once. You have a many-fold choice when connecting these modern Underwriters' Laboratories Approved intercom sets. You can use all master stations, where any person can call any other person—you can use one master station with a number of sub-stations.

**Expandable.** Start with two masters or one master and sub-station and add units as needed. Write for full details on all applications not covered above.

Master stations are finished in Walnut, measures 12"x9"x7". For 115 volts AC/DC, 25 to 60 cycles. Sub-stations use no current. Walnut cabinet 8 1/4"x7 1/2"x6 1/4".



**Six Station Master Model C-4906.** Complete with tubes, junction box attached. 26N20122—Shpg. wt. 18 lbs. .... **42.50**

**Twelve Station Master Model C-4912.** 26N20124—Shpg. wt. 18 lbs. .... **52.50**

**Twelve Station Master with earphone.** 26N20125—Shpg. wt. 19 lbs. .... **64.50**

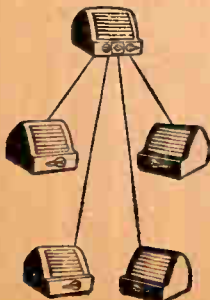


**Sub-Station Model C-41.** Connect to Universal Master Station with cable below. 26N20126—Shpg. wt. 5 lbs. .... **11.00**

Six Station Master connecting cable. 19N16016—6 pair, per ft. .... **17 1/2c**

Twelve Station Master connecting cable. 19N16017—12 pair, per ft. .... **35c**

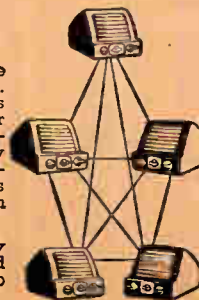
Cable for connecting Sub-Stations to Universal Master stations. 19N16040—2 pair, per ft. .... **6c**



**MASTER SELECTIVE SYSTEM**

Master Selective System consists of one Master station and up to ten Sub-Stations. Master station and one sub-station starts system, add sub-stations as needed. Master station may call any sub-station individually or all simultaneously. Sub-stations may call Master but not each other. Master Selective system features silent operation—shuts off all sound from sub-station locations when not in use.

**How to Estimate Cable.** Measure carefully the distance between the Master station and each sub-station, then order equivalent to the total footage of these distances.



**SUPER SELECTIVE SYSTEM**

Unusually versatile, low cost system offering complete privacy of conversation and flexibility to meet any requirement. Consists entirely of Master station units so that several separate two-way conversations may be carried on simultaneously. Any one Master station may talk to any other Master station at will. Masters may call one another regardless of whether station being called has power "On."

**How to Estimate Cable.** Measure the distance between units starting from any one to the second, to the third, etc., then order cable equivalent to the total footage.



# RCA, GE, LAFAYETTE-CONCORD TUBES

## NET PRICES

Type	RCA	GE	Lots of	Laf. of	Con.
	Ea.	50	Ea.	50	Ea.
OZ4	1.23	1.16			
OZ4G	1.23	1.16		.98	
OY4	2.68	2.54			
1A3	1.23	1.16		.98	
1A4P	2.18	2.06			
1A5GT	1.01	.95		.80	
1A6	1.79	1.69			
1A7GT	1.12	1.06		.89	
1B3GT/3016	1.79	1.69			
1B4P	2.18	2.06			
1B5/25S	1.79	1.69			
1C5GT	1.23	1.16			
1C8	1.79	1.69			
1C7G	1.79	1.69			
1D5GP	2.18	2.06			
1D7G	1.79	1.69			
1D8GT	2.18	2.06			
1E5GP	2.18	2.06			
1F4	1.48	1.40			
1F5C	1.48	1.40			
1F6	2.18	2.06			
1F7G	2.18	2.06			
1G4GT	1.48	1.40			
1G5G	1.48	1.40			
1G6GT	1.48	1.40			
1H4G	1.23	1.16		.98	
1H5GT	.92	.87		.73	
1H6G	1.79	1.69			
1J6GT	1.48	1.40			
1L4	1.12	1.06		.89	
1L4A	1.48	1.40			
1L4B	1.48	1.40			
1L4C	1.48	1.40			
1L4D	1.48	1.40			
1L4E	1.48	1.40			
1L4F	1.48	1.40			
1L4G	1.48	1.40			
1L4H	1.48	1.40			
1L4I	1.48	1.40			
1L4J	1.48	1.40			
1L4K	1.48	1.40			
1L4L	1.48	1.40			
1L4M	1.48	1.40			
1L4N	1.48	1.40			
1L4O	1.48	1.40			
1L4P	1.48	1.40			
1L4Q	1.48	1.40			
1L4R	1.48	1.40			
1L4S	1.48	1.40			
1L4T	1.48	1.40			
1L4U	1.48	1.40			
1L4V	1.48	1.40			
1L4W	1.48	1.40			
1L4X	1.48	1.40			
1L4Y	1.48	1.40			
1L4Z	1.48	1.40			
1L5	1.12	1.06		.89	
1L5A	1.12	1.06		.89	
1L5B	1.12	1.06		.89	
1L5C	1.12	1.06		.89	
1L5D	1.12	1.06		.89	
1L5E	1.12	1.06		.89	
1L5F	1.12	1.06		.89	
1L5G	1.12	1.06		.89	
1L5H	1.12	1.06		.89	
1L5I	1.12	1.06		.89	
1L5J	1.12	1.06		.89	
1L5K	1.12	1.06		.89	
1L5L	1.12	1.06		.89	
1L5M	1.12	1.06		.89	
1L5N	1.12	1.06		.89	
1L5O	1.12	1.06		.89	
1L5P	1.12	1.06		.89	
1L5Q	1.12	1.06		.89	
1L5R	1.12	1.06		.89	
1L5S	1.12	1.06		.89	
1L5T	1.12	1.06		.89	
1L5U	1.12	1.06		.89	
1L5V	1.12	1.06		.89	
1L5W	1.12	1.06		.89	
1L5X	1.12	1.06		.89	
1L5Y	1.12	1.06		.89	
1L5Z	1.12	1.06		.89	
1L6	1.23	1.16		.98	
1L6A	1.23	1.16		.98	
1L6B	1.23	1.16		.98	
1L6C	1.23	1.16		.98	
1L6D	1.23	1.16		.98	
1L6E	1.23	1.16		.98	
1L6F	1.23	1.16		.98	
1L6G	1.23	1.16		.98	
1L6H	1.23	1.16		.98	
1L6I	1.23	1.16		.98	
1L6J	1.23	1.16		.98	
1L6K	1.23	1.16		.98	
1L6L	1.23	1.16		.98	
1L6M	1.23	1.16		.98	
1L6N	1.23	1.16		.98	
1L6O	1.23	1.16		.98	
1L6P	1.23	1.16		.98	
1L6Q	1.23	1.16		.98	
1L6R	1.23	1.16		.98	
1L6S	1.23	1.16		.98	
1L6T	1.23	1.16		.98	
1L6U	1.23	1.16		.98	
1L6V	1.23	1.16		.98	
1L6W	1.23	1.16		.98	
1L6X	1.23	1.16		.98	
1L6Y	1.23	1.16		.98	
1L6Z	1.23	1.16		.98	
1L7	1.79	1.69			
1L7A	1.79	1.69			
1L7B	1.79	1.69			
1L7C	1.79	1.69			
1L7D	1.79	1.69			
1L7E	1.79	1.69			
1L7F	1.79	1.69			
1L7G	1.79	1.69			
1L7H	1.79	1.69			
1L7I	1.79	1.69			
1L7J	1.79	1.69			
1L7K	1.79	1.69			
1L7L	1.79	1.69			
1L7M	1.79	1.69			
1L7N	1.79	1.69			
1L7O	1.79	1.69			
1L7P	1.79	1.69			
1L7Q	1.79	1.69			
1L7R	1.79	1.69			
1L7S	1.79	1.69			
1L7T	1.79	1.69			
1L7U	1.79	1.69			
1L7V	1.79	1.69			
1L7W	1.79	1.69			
1L7X	1.79	1.69			
1L7Y	1.79	1.69			
1L7Z	1.79	1.69			
1L8	2.18	2.06			
1L8A	2.18	2.06			
1L8B	2.18	2.06			
1L8C	2.18	2.06			
1L8D	2.18	2.06			
1L8E	2.18	2.06			
1L8F	2.18	2.06			
1L8G	2.18	2.06			
1L8H	2.18	2.06			
1L8I	2.18	2.06			
1L8J	2.18	2.06			
1L8K	2.18	2.06			
1L8L	2.18	2.06			
1L8M	2.18	2.06			
1L8N	2.18	2.06			
1L8O	2.18	2.06			
1L8P	2.18	2.06			
1L8Q	2.18	2.06			
1L8R	2.18	2.06			
1L8S	2.18	2.06			
1L8T	2.18	2.06			
1L8U	2.18	2.06			
1L8V	2.18	2.06			
1L8W	2.18	2.06			
1L8X	2.18	2.06			
1L8Y	2.18	2.06			
1L8Z	2.18	2.06			
1L9	1.48	1.40			
1L9A	1.48	1.40			
1L9B	1.48	1.40			
1L9C	1.48	1.40			
1L9D	1.48	1.40			
1L9E	1.48	1.40			
1L9F	1.48	1.40			
1L9G	1.48	1.40			
1L9H	1.48	1.40			
1L9I	1.48	1.40			
1L9J	1.48	1.40			
1L9K	1.48	1.40			
1L9L	1.48	1.40			
1L9M	1.48	1.40			
1L9N	1.48	1.40			
1L9O	1.48	1.40			
1L9P	1.48	1.40			
1L9Q	1.48	1.40			
1L9R	1.48	1.40			
1L9S	1.48	1.40			
1L9T	1.48	1.40			
1L9U	1.48	1.40			
1L9V	1.48	1.40			
1L9W	1.48	1.40			
1L9X	1.48	1.40			
1L9Y	1.48	1.40			
1L9Z	1.48	1.40			
1L0	1.23	1.16		.98	
1L0A	1.23	1.16		.98	
1L0B	1.23	1.16		.98	
1L0C	1.23	1.16		.98	
1L0D	1.23	1.16		.98	
1L0E	1.23	1.16		.98	
1L0F	1.23	1.16		.98	
1L0G	1.23	1.16		.98	
1L0H	1.23	1.16		.98	
1L0I	1.23	1.16		.98	
1L0J	1.23	1.16		.98	
1L0K	1.23	1.16		.98	
1L0L	1.23	1.16		.98	
1L0M	1.23	1.16		.98	
1L0N	1.23	1.16		.98	
1L0O	1.23	1.16		.98	
1L0P	1.23	1.16		.98	
1L0Q	1.23	1.16		.98	
1L0R	1.23	1.16		.98	
1L0S	1.23	1.16		.98	
1L0T	1.23	1.16		.98	
1L0U	1.23	1.16		.98	
1L0V	1.23	1.16		.98	
1L0W	1.23	1.16		.98	
1L0X	1.23	1.16		.98	
1L0Y	1.23	1.16		.98	
1L0Z	1.23	1.16		.98	

## NET PRICES

Type	RCA	GE	Lots of	Laf. of	Con.
	Ea.	50	Ea.	50	Ea.
6AC7/1852	1.62	1.54			
6AD7G	1.79	1.69			
6AE5GT	1.01	.95			
6AF6G	1.48	1.40			
6AG5	1.48	1.40			
6AG7	1.79	1.69			
6AH6	1.98	1.88			
6AK6	1.34	1.27			
6AL5	1.12	1.06			
6AL7GT	1.48	1.40			
6AQ5	1.12	1.06		.89	
6AQ6	1.01	.95			
6AT6	.84	.79		.67	
6AU6	1.12	1.06		.89	
6AV6	.84	.79			
6BA6	1.48	1.40			
6B5	1.79	1.69			
6B6G	1.23	1.16			
6B7	1.79	1.69			
6B8	1.79	1.69			
6B8G	1.79	1.69		1.43	
6BA6	1.01	.95		.80	
6BD6	1.01	.95			
6BE6	1.01	.95		.80	
6BF6	.92	.87			
6BG6G	2.68	2.54			
6BH6	1.12	1.06			
6BJ6	1.12	1.06			
6C4	.92	.87			
6C5	.92	.87			
6C5GT	.84	.79			
6C6	1.12	1.06		.89	
6C8G	1.79	1.69			
6D6	.92	.87		.73	
6D8G	1.79	1.69			
6E5	1.23	1.16		.98	
6F5	.92	.87			
6F5GT	.92	.87			
6F6	1.12	1.06			
6F6G	.92	.87			
6F6GT	.84	.79		.67	
6F7	1.79	1.69			
6F8G	1.79	1.69			
6G6G	1.48	1.40			
6H6	.92	.87			
6H6GT	.92	.87		.73	
6J5	.84	.79			
6J5GT	.84	.79		.67	
6J6	1.62	1.54			
6J7					



## RCA AND GE TV TUBES

Newly designed television tubes for high quality, long life and exceptional brilliance. White screens assure clear, sharp picture contrast.

RCA No.	GE No.	Type	Each
36N24911		5BP4	22.50
36N24912	36N24680	5TP4	59.40
36N24915		7DP4	23.80
36N24922	36N24682	7JP4	22.08
36N24917		9AP4	57.60
36N24918	36N24684	10BP4	34.00
36N24919		12AP4	66.00

## DUMONT TELEVISION TUBES

Direct view tubes for replacement or building of high-quality television equipment. Manufactured with most modern high-precision equipment and are pre-tested to insure trouble-free service.

No.	Type	Each
36N24950	7EP4	23.25
36N24951	12JP4	69.75
36N24952	15AP4	129.50
36N24953	20BP4	270.00

## SYLVANIA SPECIAL PURPOSE TUBES

Sylvania special purpose strobotron tubes are used in the measurement of speeds of revolving machinery, the study of objects in motion. No filament voltage is required. The Electroflash tube, when used with suitable equipment, provides a brilliant flash of daylight quality with a duration of only 1/5000 second. 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 Strobotron	\$ 5.20
36N24991	SN4 Strobotron	5.20
36N24992	R-4350 Strobotron	14.35
36N24993	R-4330 Electroflash	19.00
36N24994	R-4340 Electroflash	57.00
36N24995	OA5 Trigger Tube	5.60
36N24996	X-6090 Ionization Tube	2.00

## RAYTHEON SUB-MINIATURE TUBES

New, extremely small flat tubes decrease possible size of new equipment. Batteries can be small instead of large because of very low filament drain. Solder in or plug into sockets. Types with: asterisk use 5 prong; † use 6 prong, and ‡ use 7 prong sockets.

No.	Type	Each
37N24960	2E31*	\$1.56
37N24961	2E32*	1.56
37N24962	2E35*	1.88
37N24963	2E36*	1.88
37N24964	2E41†	1.56
37N24965	2E42†	1.56
37N24966	2G21‡	1.56
37N24967	2G22‡	1.56

## HEARING AID TUBES

37N24968	CK502AX*	\$1.88
37N24969	CK503AX*	1.88
37N24970	CK505AX*	1.88
37N24971	CK506AX*	1.88
37N24972	CK507AX*	1.88
37N24973	CK510AX‡	3.15
37N24974	CK512AX*	1.88
37N24975	CK518AX*	1.88
37N24976	CK522AX*	1.88
37N24977	CK523AX*	1.88

## SOCKETS FOR SUB-MINIATURE TUBES

For hearing aids, radio controlled model airplanes and numerous other applications. Molded form mica-filled low-loss bakelite with silver plated beryllium copper contacts. With 5, 6, 7 contacts. Four prong tubes use five prong socket.

No.	Contacts	Type	Each
13N13116	5	2H5	2c
13N13117	6	2H6	23c
13N13118	7	2H7	24c

## THEATRE EXCITER LAMPS

For Sound-on-Film. 3 1/8" long, 1" dia. Single-contact bayonet base.

No.	Type	Volts	Amp.	Ea.
10N12240	T-8	10	5	59c
10N12241	T-8	10	7.5	59c
10N12242	T-8	8.5	4	59c
10N12243	T-5	15	1	73c

## FAMOUS-NAME RECEIVING TUBES

### G-C AMO MINIATURE TUBE PULLER



Designed to prevent tube breakage and burned fingers—speeds production of radios using miniature type tubes. Easily removes or inserts miniature tubes such as 6AG5, 50B5, etc. Works on suction and vacuum principle.

Simple to operate—gets into places where fingers alone could not reach. 18N15584—Shpg. wt. 2 oz. **97c**

### NATIONAL GRID CLIPS

Easily removed. Tinned grip end for easy soldering. For receiving tubes. 29N14434—Glass tubes 3/8" dia. } Ea. }  
29N14565—Metal tubes 1/4" dia. } 3c



### HOWARD W. SAMS TUBE REPLACEMENT GUIDE

Handy pocket size guide shows exactly where to replace each tube in almost 4500 models. From 1938 thru 1947. Accurate easy-to-read tube layouts. 192 pages of valuable information for the radio serviceman. 23N19660—Postpaid. **1.25**



### HOW ELECTRONIC TUBES WORK



G.E. book fully illustrates and explains functions of heater, cathode, anode, grid, etc. Explains difference between gas-filled and high-vacuum tubes. 23 pages of easy-to-read facts. 23N19979—Postpaid. **15c**

The Ignitron Tube and How it Works.

23N19982—Postpaid. **15c**

### MINIATURE SELENIUM RECTIFIERS



Built to last the life of the set—starts instantly and runs cool. Installed in a jiffy—only two soldering points. Two rectifiers may be connected as a doubler to supply 250 volts from 117V AC.

37N10559	75 MA	.88
37N10561	100 MA	.98
37N10562	150 MA	1.21
37N10563	200 MA	1.45
37N10564	250 MA	1.54

### SYLVANIA IN34 DIODE DETECTOR

Efficient high frequency operation to 100 MC. Use in TV receivers as 2nd detector or DC resistor, in FM circuits as frequency discriminator. 3/8" dia. x 3/8", 1 1/2" tinned copper leads. 29N13858—Single Diode. **1.20**  
29N13859—Dual Diode IN35. **2.65**



### BIAS CELLS AND HOLDERS

Bias high gain amplifiers. 20N6419.....1 volt.....24c  
20N6424.....1 1/4 volt.....24c  
20N6420—Holder for 1 cell.....9c  
20N6421—Holder for 2 cells.....15c  
20N6422—Holder for 3 cells.....21c  
20N6423—Holder for 4 cells.....24c



### WIRT VARIABLE REGULATORS



Use with any 110 volt AC instrument to compensate for irregular line voltage. 65 watt unit adjustable to five positions. 150 watt unit has eight positions and air cooling. 8N12521—65 Watt **80c**  
Each, Lots of 10......75  
8N12522—150 Watt.....1.59

## RCA SALES PROMOTION AIDS

### RCA TUBE MANUAL

The fountain head of authoritative tube information. Complete, up-to-date comprehensive data on all RCA receiving tubes. RCA No. RC-15. No charge when ordered with 10 assorted RCA tubes. 23N19963 Shpg. wt. lb. **35c**



### POWER AND GAS TUBES

Includes transmitting tubes, rectifiers, thyatron, ignitrons and voltage regulators. RCA No. PG-101. No charge with 5 RCA tubes. 23N19986. **10c**



### RCA TUBE BOOKLET

Characteristics and socket diagrams for 400 receiving tubes. RCA No. 1275-D. No charge with 5 RCA tubes. 23N19984. **10c**



### NEW RCA TRIPLE INDEX

Three complete indexes in one wireless bound book. 425 easily read base diagrams printed on yellow cover stock in each RCA No. 2F366. No charge with 25 RCA tubes. 23N18801—Wt. 1 lb. **75c**



### RCA RESISTOR CODE PENCIL

Not only a top quality pencil, but has magnifier on reversible eraser tip, and patented revolving resistor color code drums. No charge with 50 assorted RCA tubes. RCA No. 1F9940. 23N18800. **1.49**

### RCA DUMMY CARTONS

Fifteen assorted dummy tube cartons in three different sizes for use in window displays and inside store. 23N18807. **FREE**



### RCA FIREBALL FLUORESCENT SIGN

White letters, red background. Underwriters Approved. 6 ft. hanging chain. 20 watt fluorescent tube. RCA No. 2F683. No charge with 75 RCA tubes. 23N18805—Shpg. wt. 10 lbs. **7.50**



### SERVICE DECAL

For window, door, car or truck. 10" x 7". RCA No. 2F420. 23N18806. **FREE**

### RCA INDOOR SIGN

Double faced, illuminated. 4 pendants and wall bracket. RCA No. 2F155. No charge with 25 RCA tubes. 23N18804 Wt. 5 lbs. **2.60**



### RCA GIANT ILLUMINATED TUBE CARTONS

Use as center pieces for displays in windows and inside store. RCA No. 1F9974. No charge with 10 RCA tubes.



23N18803 Wt. 8 lbs. **1.00**

### RCA SALLY SERVICE DISPLAY

She's 21" tall, in full color. Cut out to sit on Giant carton or any other flat surface. RCA No. 2F374. No charge with 10 RCA tubes. 23N18802. **1.00**





# MICROPHONES—SEMI-DIRECTIONAL

## ELECTROVOICE MODEL 605

**Dynamic.** Designed for general sound work, paging, call, dispatch systems, recording and communications. Flat frequency response from 50-7500 cps. Output -57 db. Acoustically diaphragm. Head at fixed tilt of 22 degrees for semi or non-directional use. Satin chrome finish. Complete with 8 ft. of cable and connector. Hi-impedance.

14N13785—Shpg. wt. 5 lbs..... **14.41**  
14N13784—With 20 ft. cable..... **15.29**



**Model 905.** Crystal. Same design and characteristics as 605, except for -54 db. output. High capacity sealed crystal.  
14N13723—With 8 ft. cable. Shpg. wt. 5 lbs..... **9.70**  
14N13724—With 20 ft. cable..... **10.58**

## ELECTROVOICE MODEL 635

**Dynamic.** Newly designed, high fidelity microphone meets the requirements of broadcast service. Ideal for studio and remote broadcasting. Compact size and small grill diameter. For group or individual pickup. Swivel head permits 90° vertical tilt. Frequency response 60-13,000 cps. ±2.5 db. Output 53 db. below 6 milliwatts. Acoustically moisture proof, shock resistant diaphragm. 50 or 250 ohm impedance selector. With 20 ft. 2 conductor shielded cable.

14N13717—Shpg. wt. 2 lbs..... **35.28**



## ELECTROVOICE MODEL 915

**Crystal.** Combines excellent frequency range and mounting flexibility. For public address, paging, recording and amateur communications. Fits in palm of hand, mounts on desk, floor stands or overhead suspension bracket. Response 60-7500 cps. Output -50 db. Moisture sealed crystal. Gray-brown finish. Hi-impedance.

14N13731—With 7½ ft. cable. Wt. 1 lb..... **5.88**  
14N13732—With slide-to-talk switch..... **6.76**



**Model 330.** Suspension Bracket. Designed for easy overhead suspension or mounting on wall or cabinet. Fits all ¾" - 27 thread adaptors supplied with 615 and 915 series.  
14N13737—Shipping weight 4 oz..... **32c**

## ELECTROVOICE MODEL 610

**Dynamic.** For ham rigs, public address and paging systems. Quality reproduction of voice and music. Acoustically diaphragm. Substantially flat frequency response from 50-8000 cps. Output -53 db. For durable service indoors and outdoors. Head at 15 degree fixed tilt. Case finished in rich satin chrome. Complete with 8 ft. of cable and connector. Hi-impedance.

14N13725—Shpg. wt. 3 lbs..... **17.35**  
14N13726—With 20 ft. cable..... **18.23**



**Model 910 Electrovoice.** Crystal mike. High capacity moisture sealed crystal. Same design and characteristics as the 610 above, except for -48 db. output.  
14N13727—With 8 ft. cable. Shpg. wt. 3 lbs..... **13.23**  
14N13728—With 20 ft. cable..... **14.11**

## ELECTROVOICE MODEL 600-D

**Hand-Held Speech Dynamic.** Designed for clear, crisp speech transmission in communications, public address and recording. Extremely rugged construction for use indoors or out at temperatures from -40 to 185 degrees F. Acoustically diaphragm. Frequency response from 100-6000 cps. Output -55 db, push-to-talk switch operates mike and relay. Panel mounting bracket on rear of case. Equipped with 6 ft. of cable. Black phenolic case. Hi-impedance.

14N13729—Shipping weight 2 lbs..... **20.58**  
14N13730—As above with switch lock... **21.46**



## ELECTROVOICE MODEL 615

**Dynamic.** Similar in design and electrical characteristics to the Model 915. Frequency range 55-7500 cps. Output -57 db. With 7½ ft. cable.

14N13733—Shipping weight 1 lb..... **9.70**  
14N13734—With slide-to-talk switch..... **10.58**



**Model 615SR Dynamic.** Same as above except with slide-to-talk relay control switch, 48-inch low capacity cable with isolated relay leads and hang up hook for mobile communications.

14N13735—Shipping weight 1½ lbs..... **11.76**  
**Model 415 Desk Stand.** Compact, streamlined, reclining desk stand. Mike mounts at 15° tilt. Easily attached or removed.  
14N13736—Shpping weight 8 oz..... **88c**



## TURNER MODEL 33D

**1. Dynamic.** For amateur work, recording and orchestra pickup. 90 degree tilting head for semi or non-directional use. Specially designed aluminum diaphragm, quality Alnico magnet. Frequency response 30-9000 cps. Output -54 db. Complete with 20 ft. of cable and connector. Hi-impedance.

14N13752—Shpg. wt. 3 lbs..... **15.88**

**Model 33X Crystal.** Shock mounted, moisture sealed Rochelle slit crystal, barometric compensator. Output -52 db. Other characteristics same as 33D.

14N13753—Shpg. wt. 3 lbs..... **14.41**

## TURNER MODEL 20X

**2. Crystal.** Newly designed, lightweight, low-cost hand mike for home recorders, amateurs and paging systems. Shock-mounted "Metalseal" Rochelle salt crystal. Barometric compensator. Frequency response 50-7000 cps. Output -54 db. Rich Brown enamel finish. With 7 ft. cable. Hi-impedance.

14N13768—Shpg. wt. 2 lbs..... **7.56**  
14N13769—As above with switch..... **8.73**



## TURNER CHALLENGER MODELS

**3. Inexpensive microphones** for general purpose work. For inexpensive public address and paging systems, amateur rigs, home recorders. Crystal models have shock mounted, moisture sealed Rochelle salt crystals, barometric compensators and wind gag to prevent blasting. With 7 ft. cable. Hi-impedance. Model CD. Dynamic. Frequency response 50-7000 cps. Output -52 db. Chrome finish.

14N13763—Shpg. wt. 2½ lbs..... **11.47**

**Model CX Crystal.** Frequency response 50-7000 cps. Output -52 db. Chrome finish.

14N13765—Shpg. wt. 2½ lbs..... **9.55**

**Model BX Crystal.** Frequency response 50-6000 cps. Output -52 db. Brown finish.

14N13764—Shpg. wt. 2½ lbs..... **6.38**

## TURNER MODEL 22D

**4. Dynamic.** For amateurs, call and paging systems. 90° tilting head permits semi- or non-directional operation. Quality Alnico magnet. Response 50-9000 cps. Output -54 db. Chrome finish. With 7 ft. cable and connector. Hi-impedance.

14N13751—Shpg. wt. 2½ lbs..... **14.99**



## TURNER MODEL U9S

**5. Professional dynamic.** Saddle tilts 90° for semi or non-directional use. Response 40-9000 cps. Output -52 db. Gun metal finish. With 20 ft. cable and connector. Switch gives choice of 50, 200, 500 ohms or high impedance.

14N13754—Shpg. wt. 5 lbs..... **23.52**

## TURNER MODEL 9D

**6. Hand-D Crystal or Dynamic.** Mounts on floor or desk stand, suspension hook for hanging. Slide switch. 7 ft. cable and connector. Hi-impedance. Dynamic. Response 60-7000 cps. -52 db.

14N13760—Shpg. wt. 3 lbs..... **15.88**

**Crystal.** Response 0-7000 cps. -52 db.

14N13759—Shpg. wt. 3 lbs..... **13.82**

## TURNER MODEL 22X

**Crystal.** Mechanical shock-proof mounting, high quality, humidity protected crystal. Automatic barometric compensator. Same design and characteristics as Model 22D except output of -52 db.

14N13750—Shpg. wt. 2½ lbs..... **11.76**

## SEMI-DIRECTIONAL MICROPHONES

Semi-directional microphones are pressure microphones that respond to variations in sound pressure. They include Crystal, Dynamic, Carbon and Condenser generating elements. They are substantially non-directional though they tend to become directional at higher frequencies. For a microphone of 2½" dia., directivity starts at about 2000 cps. and increases with frequency.

Pressure microphones are excellent all-purpose instruments where conditions of room reverberation, acoustic feedback and ambient noise are not too severe. The better quality types are desirable for broadcast announcing and remote pick-up, public address, amateur communications and recording. Semi-directional microphones are also recommended for use with outdoor systems.



**SHURE MODEL 707-A**



**Crystal.** Mechanically isolated moisture proofed Bimorph crystal. Ideal for use with amateur phone transmitters, public address equipment and call systems. Frequency response suitable for voice and music reproduction. Output—53 db. Attractively styled pearl Gray finished case with polished chrome grille. Complete with 7 feet of cable. High-impedance.

14N13630—Shpg. wt. 1 1/4 lbs. **7.94**

Same as above, but with 20 ft. of cable. Output—56.5 db.

14N13430—Shipping weight 2 lbs. **8.82**

**Model 52.** "Econodyne." Sturdy dynamic microphone that offers quality performance at low cost. Frequency response from 60-8000 cps. Output—52 db. Similar in appearance to the Model 707-A. Complete with 7' cable. High-impedance.

14N13631—Shipping weight 3 lbs. **14.70**

**MODEL 708-A**

**Crystal.** Stratoliner for good reproduction of voice and music. Genuine Bimorph crystal. Frequency response 60-8000 cps. free from undesirable peaks. High output of —53 db. Tilting head for directional and non-directional use. Pearl gray finished case of the latest ultra-modern design. Complete with 7 ft. cable. High-impedance.

14N13633—Shpg. wt. 2 lbs. **14.70**

Model 708-A with 20 ft. cable. —56 db.

14N13634—Shpg. wt. 2 1/2 lbs. **15.58**

**SHURE MODEL 718-A**

**Versatex.** Extremely versatile high output diaphragm type crystal microphone. Suitable for use as hand mike, on floor stand, on desk stand or can be placed on table top, desk top or any flat surface. Ideal for amateur rigs, paging systems, home recording and low cost public address systems. Moisture proof Bimorph crystal unit mounted in rubber to provide mechanical isolation. Built-in RF protective resistor. Frequency response 60-8000 cps. Output—53 db. In heavy maroon shock-resisting plastic case.

Complete with 7 feet of shielded cable. Hi-impedance.

14N13629—Shipping weight 1 1/2 lbs. **6.76**



**ASTATIC MODEL JT-30**

**1. Crystal.** Inexpensive, all purpose crystal microphone. Especially suited for amateur, home recording and portable sound systems. Frequency response from 30-10,000 cps. Output is —52 db. Mounted on combination hand and desk stand, with heavy die cast interlocking base. Finished in Opalescent Gray and bright chrome grille. Complete with concentric cable connector and 15 ft. cable. High-impedance.

14N13427—Shipping weight 4 lbs. **9.97**

**ASTATIC MODEL T-3**

**2. Crystal.** New improved crystal microphone. Superb response for amateur rigs, recording and public address systems. Tilting head for semi or non-directional use. Output—52 db. Attractive chrome plated case. Complete with cable, spring cable protector and connector. High-impedance.

14N13670—Shipping weight 3 lbs. **16.08**

**Model GT-3.** Model T-3 microphone with Grip-to-Talk stand.

14N13525—Shipping weight 5 lbs. **19.32**

**SPECO "MAX-MIXER"**

**3.** New low cost unit for adding and mixing two more microphones than provided for by regular amplifier input. No complicated connections, just plug into mike jack of amplifier. Has three individually controlled high-impedance inputs. With 6 ft. cable, connector and phone plug adaptor.

14N13642—Shipping weight 2 1/2 lbs. **11.14**

**LAFAYETTE-CONCORD CONTACT MIKES**

High-impedance pickup for use with any musical instrument. Easily installed without special strings or changes. Enclosed with soft, non-marring material. With 8-foot cable.

14N13746—Less volume control. (4) Shpg. wt. 4 lbs. **5.25**

14N13745—With volume control. (5) Shpg. wt. 4 lbs. **8.85**

**SEMI-DIRECTIONAL, CONTACT MIKES**

**SHURE MODEL 51**



**Sonodyne.** Newly styled and designed pressure dynamic microphone. For general purpose use with public address systems, amateur transmitters, general communications, recording and paging systems. Operates on the principle of moving coil element in a magnetic field. Peak-free frequency response from 60-10,000 cps. Selector switch at front of case for choice of outputs, —56.1 db. at 40 ohms, —56.8 db. at 250 ohms or —55 db. at high-impedance. Rich pearl Gray finished case, designed to provide improved acoustical performance and modern appearance. Complete with 20 ft. of cable and one cable connector.

14N13432—Shipping weight 5 lbs. **22.05**

**SHURE MODEL 76-B**



**Lapel Microphone.** Designed for public address, lecturing, portable transmitters and all general uses for intelligible reproduction of speech. Heavy lapel clip at rear of case permits user to move freely and have both hands free for demonstrations. Frequency response 40 to 6,000 cps.

High frequencies accentuated for maximum intelligibility. Pressure actuated diaphragm type crystal mike. High capacity, moisture sealed Graphoil Bimorph crystal. Output—57 db. Dia. 1 7/8". With lapel clip, 25 ft. cable. Hi-impedance.

14N13638—Shipping weight 1 lb. **15.88**

**SHURE 102-C**



**Carbon Type.** Especially designed for military equipment and other uses where ruggedness and dependability are vital factors. High quality carbon unit assures clear, crisp voice response. Compact size fits snugly into palm of hand. Heavy duty press-to-talk switch in case for convenient one-hand operation. High output—32 db.

Relay normally open, microphone switch normally open. Supplied complete with hook for suspension mounting and bracket for wall mounting and 4 feet of 4-conductor unshielded Kellogg Coiled Kord cable and connector. Overall dimensions: 3 3/4" high, 1 3/4" deep, 2 3/4" wide.

14N13657—Shipping weight 1 lb. **17.64**



**ASTATIC VELVET VOICE CRYSTAL**

**6. Model 200.** Designed to meet practically every need. Quick-lock detachable base, may be used as desk stand, hand mike or on floor stand. Response 30-10,000 cps. Output—50 db. Gold case, chrome grille. 15 ft. cable. Hi-impedance.

14N13364—Shipping weight 1 1/2 lbs. **8.20**

Same characteristics and design as above, but with switch.

14N13365—Shipping weight 1 1/2 lbs. **8.82**

**ASTATIC MODEL D-104**

**7.** Designed for close talking applications. Uses new type yoke driven bridge mounted Graphoil crystal with barometric compensation and shockproof mounting. Range 30-7500 cps. Output—48 db. With plug, connector and cable protector.

14N13363—Shipping weight 2 lbs. **14.46**

**AMPERITE KONTAK MIKES**

Faithfully Reproduce the Vibrations of any Musical Instrument. Moisture-proof rubber case. Response 40-6000 cps.

**8.** Without vol. con. —40 db. 1" x 3" x 1". 15 ft. cable. 14N13675—Hi-impedance. Shipping weight 2 lbs. **7.06**

**9.** With vol. cont. —30 db. 3" x 1" x 5/8". 25 ft. cable. 14N13690—Hi-impedance. Shipping weight 2 lbs. **10.58**

14N13687—Strap for flat top guitars. **59¢**

**10.** "KF" Foot Volume Control. Provides smooth control of volume by foot action. Hi-impedance. 15 ft. cable. 14N13663—Shipping weight 4 lbs. **10.58**

**TURNER CONTACT MIKE**

**11. Model MM** provides volume from stringed instrument without feed back. Vol. Cont. built in. 3 1/8" x 1 1/8". 20' ft. cable.

14N13757—Shipping weight 1 lb. **10.58**

14N13758—Without Volume Control. **9.26**



# UNI-, BI-DIRECTIONAL MICROPHONES

Uni-directional microphones are live at the front and dead at the rear, solve many sound and broadcast problems. Especially desirable for overcoming feedback and audience noise. Can be used in and out of doors, for music or speech.



### ELECTROVOICE CARDAX

- 1. Model 950. Moisture-sealed crystal element. Cardioid microphone with new Mechanophase principle provides true cardioid uni-directional pickup and relatively high gain. Selector switch varies response for hi-fidelity sound pickup or extra crispness of speech. Output -57 db on flat curve, -48 db on rising curve. Compact rugged construction for indoor or outdoor use. Tilting head. Built-in on-off switch. Satin chromium finish. With 20 ft. cable, plug, Hi-impedance.  
14N13720—Shipping weight 4 lbs. .... **23.23**

### ELECTROVOICE CARDYNE

- 2. Model 726. Eliminates unwanted sounds, stops feedback, increases working distance from microphone. New Mechanophase principle gives wide angle front pickup, dead at rear. New Acoustalloy diaphragm insures wide flat response from 40-10,000 cps. Will withstand extremely severe operating conditions for both outdoor and indoor use in remote broadcasting, disc and film recording, public address. Output -53 db. Alnico V magnet. Satin chrome finish. Built-in on-off switch. Complete with 20 ft. cable, plug, Hi-impedance.  
14N13718—Shipping weight 4 lbs. .... **34.99**

### AMPERITE DYNAMICS

- 3. Pressure Gradient Dynamic. Ellipsoid pickup pattern. 40-11,000 cps. Output -56 db. Satin chrome finish. On-off switch.  
14N13610—PGH, hi-impedance. Shpg. wt. 7 lbs. ....  
14N13613—PGL, 200 ohms. Shpg. wt. 7 lbs. .... } **18.82**  
Model PGAH. As above, but with 70-8000 cps.  
14N13611—Shpg. wt. 7 lbs. 12 ft. cable. Hi-impedance. .... **14.70**  
14N13607—Plastic baffle for PG microphones. .... **.88c**

### ELECTROVOICE MODEL 650

- New model 650 was designed to meet the requirements of FM and AM broadcast service. Each unit individually calibrated. Newly developed shock mount eliminates undesirable vibrations. Acoustalloy diaphragm, Alnico V and Armco iron, in an efficient magnetic circuit, provide high output (-46 db.) and flat response 40 to 15,000 cps. Polar Pattern non-directional at low, directional at high frequencies. Impedance selector switch for 50 to 250 ohms. Strain on cable eliminated by Cannon XL-3 connector. Satin chrome finish. With 20 ft. of cable, connector.  
14N13715—Shipping weight 4 lbs. .... **88.20**



Cardioid, meaning "Heart Shaped," is a term applied to uni-directional microphones, describing their pickup pattern. Wide angle 135° front pick-up and null back response. Lowered room reverberation, random noise and acoustic feedback decreases or eliminates many serious causes of distortion and volume level limitations. Crystal and dynamic types are available as well as combination velocity-dynamic.



### SHURE MODEL 737-A

- 4. Monoplex high output Super Cardioid. "Metal Seal" crystal, with "Shure Uniphase" principle. For public address, communications and recording. Response from 60-10,000 cps. over wide range angle at front. Rear response down approximately 15 db. Output -53 db. With 20 ft. cable and connector. Finished in Pearl Gray. High impedance. Swivel head.  
14N13431—Shipping weight 5 lbs. .... **20.87**

### SHURE MODEL 55

- 5. Unidyne moving coil dynamic, with new "Shure Uniphase" principle. For public address and recording. Flat response from 40 to 10,000 cps. Impedance selector switch at rear of case to allow selection of Low, Medium or High impedance. Output is -56.1 db. into 40 ohms, -56.8 db. into 250 ohms, and -55 db. into 35,000 ohms. Tilting head adjustment. Complete with 25 ft. of cable and connector plug.  
14N13689—Shipping weight 7 lbs. .... **36.75**

### SHURE MODEL 556

- 6. "Broadcast." Super-Cardioid type uni-directional moving coil dynamic microphone. Uni-directional characteristic obtained by "Shure Uniphase" principle. Especially designed and tested to meet the requirements of the broadcast studio. Random noise pickup reduced 73%. Spring suspended in case to reduce mechanical vibration pickup. Frequency response from 40 to 10,000 cps. Switch at rear of case for selection of Low, Medium, or High impedance. Output -56.1 db. at 40 ohms, -56.8 db. at 250 ohms and 55 db. at 35,000 ohms. Tilting head adjustment. With 7 ft. cable and connector.  
14N13562—Shipping weight 6 lbs. .... **51.45**

### ELECTROVOICE MODEL 645

- High fidelity, high output dynamic. Ideally suited for studio or remote pickup broadcasting. Manufactured to close tolerance every unit is individually calibrated. New acoustalloy diaphragm withstands high humidity, corrosive effects of salt air and severe mechanical effects. High fidelity flat response 50-15,000 cps. High output level is -50 db. Selector switch for 50 or 250 ohms impedance. Cannon XL-3 connector permits tilting of microphone without strain on cable or connector. Rich, durable satin chrome finish. With 20 ft. cable, connector.  
14N13716—Shpg. wt. 4 lbs. .... **58.80**



BI-DIRECTIONAL MICROPHONES are usually Velocity or Ribbon type. They are bi-directional for all frequencies. Live at the front and back and dead at the sides, top and bottom.

### ELECTROVOICE VELOCITY MICROPHONES

- Model V-1. Velocity ribbon. Excellent for public address, recording and remote broadcast. Cradle tilts to reduce feedback and random noise, permitting increased volume levels. Built-in shock absorbers to eliminate mechanical vibration. Sliding contact switch shorts transformer secondary in "off" position. Frequency response substantially flat from 40-9,000 cps. Output -65 db. Satin Chrome Finish. With 20 ft. cable, connector. Hi-impedance.  
14N13722—Shpg. wt. 4 lbs. .... **21.46**  
Model V-1A. As above, but -59 db. output.  
14N13721—Shpg. wt. 4 lbs. .... **23.52**



- Model V-2. Wide Range Velocity. Rubber mounted shock absorber reduced mechanical vibration. Locking, tilting one-piece cradle. Frequency response substantially flat from 40-10,000 cps. Built-in on-off switch, in off position shorts transformer secondary. Output -62 db. Bronze Gun metal finish. With 20 feet of cable. Hi-impedance.  
14N13740—Shipping weight 5 lbs. .... **26.46**  
Model V-2A. Similar to above, but output level is -58 db.  
14N13741—Shipping weight 5 lbs. .... **29.40**

Can be worked from the front and back or both simultaneously. Unwanted sounds minimized by orienting microphone so that the side faces the sound source. For orchestra, solo.

### AMPERITE

- Studio Ribbon Microphone, for broadcasting, recording, and public address. Will not become "boomy" on close talking. Pickup angle 120° at front and back with practically no frequency discrimination. Ruggedly constructed for indoor or outdoor use. Not affected by wind. Frequency response from 40-14,000 cps. Output -56 db. Chrome finish. Complete with switch, 25 feet of cable and cable connector. Shipping weight 8 pounds.  
14N13616—R80 H. Hi-impedance. ....  
14N13617—R80 L. 200 ohm. .... } **47.04**  
Model RBHG Ribbon. Frequency response from 50-11,000 cps. Output -65 db. Chrome finish. With switch, 25 ft. cable and connector.  
14N13620—RBHG Hi-impedance. Shpg. wt. 8 lbs. ....  
14N13621—RBLG 200 ohms. .... } **24.70**  
Model RSHG Ribbon, for use with public address systems and recording. Frequency response from 70 to 8,000 cps. Output -60 db. Baked enamel finish. Complete with switch, 12 ft. of cable and cable connector. Shipping weight 8 lbs.  
14N13623—RSHG Hi-impedance. ....  
14N13624—RSLG 200 ohms. .... } **18.82**





### FLEXO MIKESTER



DESK STAND. Handles any mike to 4 lbs. Spring controlled, adjustable to countless positions. Double arm action permits a horizontal swing of 330° and extension of 36". Easy portability. Ideal for use where several speakers are involved. For radio broadcast studios, auditoriums, communication systems, churches, etc. Royale Gray finish to match any mike.

14N22052—Shpg. wt. 4¾ lbs... **7.06**

Same as above except on 40" floor stand. Large heavy 13½" dia. base.

14N22051—Shipping weight 23 lbs... **11.91**

### MICROPHONE DESK STANDS

**1. LAFAYETTE-CONCORD FIXED DESK STAND.** 6" high. Chromium tube. 6" dia. black wrinkle base. ¾"-27 male threads for attaching to microphone.

14N13539—Shpg. wt. 2½ lbs... **1.25**

**2. ATLAS ADJUSTABLE DESK STAND.** Newly designed two-section telescopic stand. Easily adjusted from 8" up to 13". Chromium finished heavy duty ¾" and 7/8" tubing. Gray base, 6" dia.

14N13537—Shpg. wt. 4 lbs... **2.65**

**3. ASTATIC "GRIP-TO-TALK" STAND.** Built-in micro-movement switch operates relay for "break-in" operation. Excellent for use with amateur transmitters, paging and call systems. Fits all 3-prong Astatic microphones. Heavily weighted telephone black base, chrome plated tube, 8¼" high.

14N13373—Shpg. wt. 3 lbs... **6.44**



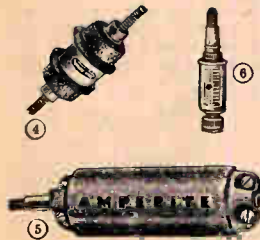
**4. SHURE INPUT TRANSFORMER—**High quality cable type. Use where long lengths of mike cable are required, without loss of high frequencies. Matches 40 and 250 ohm mikes to hi-impedance input. 1¾" dia. x 27/8". 7 foot cable.

14N13673... **7.70**

**5. LGP INPUT TRANSFORMER.** Matches 50 or 200 ohms to hi-imped. input. Standard for close talking mikes; laboratory for voice and music.

14N13608—Standard... **4.70**

14N13609—Laboratory... **5.88**



**6. THORDASON MIKE CABLE TRANSFORMER.** Permits rapid change from low impedance to high impedance mike or any amplifier. Frequency response flat from 30 to 15,000 cycles.

Stock No.	Type No.	Primary	Sec.	Turns Ratio	Each
6N2006	T20A40	36-60	50,000	1:31.6	14.70
6N2007	T20A41	200-250	50,000	1:14.2	14.70



### ATLAS MICROPHONE ACCESSORIES

**7. BOOM STAND.** For suspending microphone over speakers' table, or stage. Can be adjusted to the weight of any mike. Height from 48" to 72". Boom arm 63" long, can be very easily removed. Base diameter 17". Chrome and Gun Metal finish.

14N22059—Shpg. wt. 35 lbs... **32.34**

**8. BABY BOOM ARM.** Quickly and easily attached to any standard floor stand. Has Universal swivel for adjusting and locking into position. Adjustable for weight of any mike. Length of the arm is 32".

14N22060—Each... **4.12**

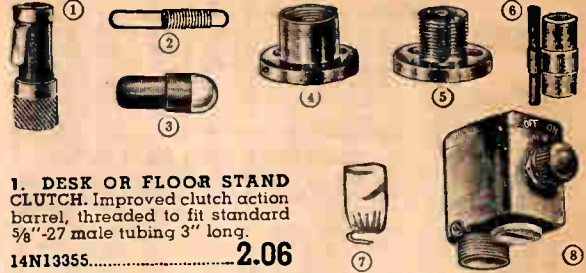
**9. BRACKET CLAMP.** Can be used directly as microphone support, or with the baby boom arm. Clamps to overhanging edge of table or piano. Chrome finish. 6" long.

14N13371—Each... **1.76**

**10. FLEXIBLE GOOSENECK.** Attaches to any microphone stand. Can be used where moderate adjustment is required. ¾"-27 thr. male and female ends. Chrome finish. 13" long.

14N13372—Each... **1.18**

### MICROPHONE STANDS, ACCESSORIES



**1. DESK OR FLOOR STAND CLUTCH.** Improved clutch action barrel, threaded to fit standard ¾"-27 male tubing 3" long.

14N13355... **2.06**

**2. MIKE SPRINGS.** Made of fine tempered steel. Size: ¼" in diameter x 1½" long. Complete set of 8 springs.

14N13402... **17¢**

**3. CARBON GRANULES,** extra fine quality, guaranteed non-adulterated. Refills one two-button carbon mike.

14N13481... **38¢**

**MIKE FLANGES, EXTENSION RODS.** Widely used for neat inconspicuous permanent mounting on desk top, pulpit and amateur rigs. Fits all standard ¾"-27 mikes. Available in male or female types. Base diameter 1¼", 3 mounting holes with 7/8" mounting centers. Extension rods male on both ends.

14N13350—Male Flg. (5)... **30¢** 14N13351—Female Flg. (4)... **30¢**

14N13352—6" Ext. Rod... **44¢** 14N13353—12" Ext. Rod... **59¢**

**6. MIKE CABLE CLIP.** For holding mike cable close to microphone stand. Nickel plated brass. Easily attached.

14N11661... **9¢**

**MIKE ADAPTERS.** Adapts spec. fittings to standard stands.

14N13367—5/8"-27 female to ½" male pipe thread (RCA)... **44¢**

14N13368—1/8" female pipe to 3/8"-27 male... **29¢**

14N13369—3/4" long, 3/8"-27 male running thread... **15¢**

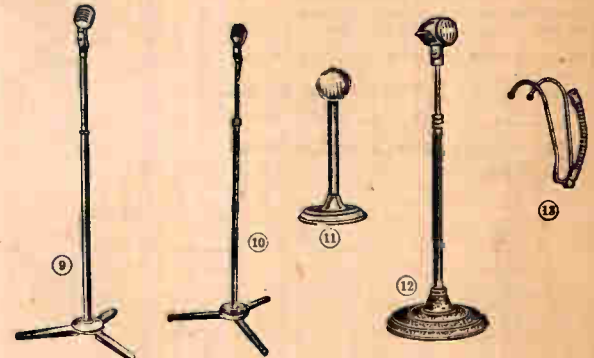
14N13370—5/8"-27 female to 3/8"-27 female coupling... **29¢**

**7. MIKE DUST COVER.** Keeps dust, grit and moisture from the working parts. Permits use of sensitive mikes in windy areas. Reproduction is 95% true with the cover in place.

14N13450... **59¢**

**8. SHURE A83B SWITCH.** Quickly attached to any cable connector type Shure mike. No wiring required.

14N13594—Shpg. wt. 1 lb... **3.53**



### ELECTROVOICE MICROPHONE STANDS

**9. MODEL 425 FLOOR STAND.** One hand finger-tip operation. Press button to raise or lower shaft between 37" and 66". Automatically locks when button is released. New type adjustable 3 leg base with 17" spread gives firm support. Two legs adjustable for placing flush against speaker's stand, or stage. Folds up for portability. Satin chrome finish. ¾"-27 thread.

14N22049—Shipping weight 9 lbs... **14.41**

**10. MODEL 430 FLOOR STAND.** Press button with finger, raise or lower with other hand, between 36" to 65". Automatically locks. Three legged base with 17" spread. Removable legs are held in place by one bolt. Attractive Gray finish, extension shaft is finished in satin chrome.

14N22048—Shipping weight 9 lbs... **8.82**

**11. MODEL 423-A6 DESK STAND.** Sturdy desk or table stand. Round die cast base, rubber buttons prevent scratching surfaces. Satin chrome finished. Base dia. 4 5/8", stem riser 6".

14N13538—Shpg. wt. 1 lb... **2.35**

### LAFAYETTE-CONCORD MICROPHONE STAND

**12. FLOOR STAND.** Smooth adjustments from 35" to 68". Positive grip friction clutch firmly locks stand. Base diameter 10". Finished in black wrinkle, chrome plated uprights.

14N22047—Shpg. wt. 19 lbs... **4.69**

**13. NECK STAND.** For lecturers, demonstrators and teachers. Fits comfortably around neck leaving hands free. Flexible gooseneck has ¾"-27 thread. Weighs only 12 ounces.

14N1345J—Shpg. wt. 1 lb... **1.25**



# SPEAKERS AND PROJECTORS

## UNIVERSITY TWEETER ADAPTER

Converts any 12-inch cone speaker to coaxial speaker with use of a 4 mmfd. condenser. Consists of Single Tweeter (22N21323) and all-metal adapter ring with fitting. Inexpensive, efficient method of extending frequency ranges.

22N21329—Shpg. wt. 8 lbs. .... 14.70

## UNIVERSITY HIGH PASS FILTER

For use with Single and Dual Tweeters listed below. Makes possible the connection of tweeters to voice coil terminals of any PM or conespeaker without the creation of an electrical unbalance. Has HF volume control. Cut-off frequency approx. 2000 cycles. Size: 3½" x 2¼" x 2½".

22N21328—Shpg. wt. 2 lbs. .... 5.88

## UNIVERSITY SINGLE AND DUAL TWEETERS

Provide the only efficient and economical method of extending the upper register to obtain high fidelity speaker response. Designed to reproduce frequencies between 2,000 and 15,000 cps. They are recommended for FM or AM receivers, transcription reproduction, and broadcast studio monitoring. No complicated wiring necessary—requires only High Pass Filter (22N21328) above. Single Tweeter Type 4401 is designed to convert the speaker of the average home radio or phono amplifier to a HF system. Model 4401 has an impedance of 12 ohms, power of 6 watts; 4402 has 6 ohms impedance, 12 watts power.

22N21323—Single Tweeter. Size: 4—2¾x5". Wt. 4 lbs. .... 11.76

22N21324—Dual Tweeter. Size: 9½x2½x5". Wt. 6 lbs. .... 23.52

## UNIVERSITY PAGING SPEAKERS

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

No.	Type	Watt	Imp.	Freq.	Lb.	Cost
22N19349	MIL	5	8	400-9000	3½	14.70
22N19348	IB8	12	8	300-6000	5	19.11
22N24015	CR	18	16	250-6000	9	24.70
22N21322	MIL	3	45	400-9000	3½	15.43

## UNIVERSITY REFLEX PROJECTORS

2. High efficiency exponential air column type projectors. Heavy-gauge all metal spun horns. Incorporate design features that insure superior acoustic results. Non-resonant rubber rims with each unit. Will handle 25 watts output. With universal "U" type mounting bracket. Battleship Grey finish. Waterproofed for outdoor use. Less drivers.

No.	Model	Dia.	Lgth.	Cutoff	Lbs.	Each
22N20049	PH	20"	16"	140	12	17.05
22N20047	LH	25"	21"	115	18	26.17
22N20046	SMH	15"	12"	180	8	14.41

## UNIVERSITY DRIVER UNITS

3. Quality Alnico magnets insure peak efficiency. New one-piece molded Phenolic diaphragm, immune to temperature changes and corrosion. With "rim-centering" construction for perfect shockproof alignment and efficiency. Hermetically sealed.

No.	Type	Range	Watt	Ohm	Lb.	Each
22N21302	PAH	80-6000	25	16	9	29.11
22N21307	MA25	90-6000	25	16	3	14.70
22N21308	SAHF	90-10,000	25	16	9	21.76

## UNIVERSITY ACCESSORIES

4. Model 2YC Connector for connecting two-driver units to any trumpet.

22N21305—Shpg. wt. 3 lbs. .... 5.88

5. Model PMA Adaptor for mounting trumpet on pipe fitting.

22N21306—Shpg. wt. 3 lbs. .... 89c

Line Matching Transformers weatherproofed for outdoor use.

No.	Type	Pri. Imp.	Sec. Imp.	Watt	Each
22N5898	5401	500-1000-1500-2000	8	12	7.35
22N5899	5402	250-500-1000-1500-2000	4-8-16	25	11.76

## ATLAS DRIVER UNITS

Standard and high fidelity reproducers using new "Alnico V-Plus" super-efficient, completely shielded magnetic assembly for greatest conversion efficiency. Both have impedance of 16 ohms, 25 watts power. "Double Seal" housing.

22N21335—PD-5V, 80-6000

cps. .... 19.11

22N21336—PD-8V, 80-9500

cps. .... 24.99

## ATLAS "DR" PROJECTORS

Non-resonant, smooth responding projectors, designed for universal application. "Reflex" design allows overall compactness with required acoustic air column length: DR32—32"; DR42—42"; DR54—54". All-aluminum; gray enamel finish.

No. Atlas Dia. Lgth. Wt. Ea.

22N20089 DR32 14" 12" 8 13.82

22N20090 DR42 21" 14½" 8 16.46

22N20091 DR54 26" 18" 13 23.52

## ATLAS SPEAKER SUPPORT STAND

Especially designed for outdoor use where a large area is available for base leg spread. The three legs automatically level themselves on uneven ground or turf. Height adjustable from five to ten feet. Special two-way telescoping locking mechanism offers an extra margin of safety against accidental release. Tube sections of cadmium plated steel tubing. Top fitting included.

22N20092—Shpg. wt. 20 lbs. .... 22.05

## ATLAS HORN MOUNTING ASSEMBLY

Makes possible mounting of up to three speakers on single support stand. Easily assembled—ideal for quick rental "set-ups" in all locations. Machined aluminum. Two fittings, hardware.

22N20093—Shpg. wt. 5 lbs. .... 8.82



## KAINER DELUXE PROJECTOR

Heavy spun steel alloy. Accommodates all 12" speakers. Rear has back pressure release. Length, 20"; bell, 17"; flare extension, 11". Fits standard ½" pipe. Base has tilting dog-toothed adjustment. Less base.

22N20077—Shpg. wt. 13 lbs. 12.73

22N20078—Bracket with base... 2.26

22N20087—Waterproof Cover... 1.03



## JENSEN PERI-DYNAMIC PROJECTOR

1. Complete assemblies of PM systems. Usually good frequency response from 100 to 5500 cycles. Designed for music or voice reproduction indoors or outdoors. Power handling capacity 15 watts average. 25 watts max. Voice coil impedance is 8 ohms. Bell diameter, 24½"; depth 30". Projector less stand.

22N19004—Shipping weight 30 lbs. .... 48.51

22N19005—EA-5 adjustable stand for above. .... 2.94

## JENSEN HYPEX PROJECTORS

2. Complete assemblies including driver units, VH20 and 24 are for both speech and music reproduction, VH15 and 91 for speech alone. Steel encased, reflex horn design.

Model VH24. Rated 25 watts max. Bell dia. 25". Depth 22¾". Acoustical length 58". V.C. 16 ohms. With bracket, term. box.

22N18918—Projector and Driver Unit. Wt. 25 lbs. .... 43.81

Model VH20. Rated 25 watts max. Bell dia. 21". Depth 20¼". Acoustical length 52". V.C. 16 ohms. With bracket, term. box.

22N18917—Projector and Driver Unit. Wt. 22 lbs. .... 34.04

Model VH15. Rated 15 watts max. Bell dia. 16". Depth 15". Acoustical length 36". V.C. 8 ohms. With bracket, term. box.

22N18915—Projector and Driver Unit. Wt. 15 lbs. .... 27.64

Model VH91. Rated 15 watts max. Bell dia. 8¾". Depth 7¾". Acoustical length 16". V.C. 8 ohms. Bracket, term. box.

22N18916—Projector and Driver Unit. Wt. 5 lbs. .... 19.11

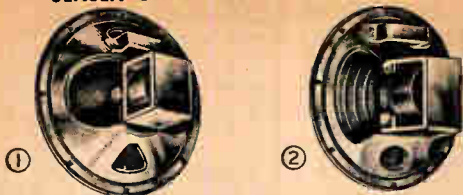
## CAR-TOP HORN CARRIER

Waterproof plywood and angle iron. 4 suction cups; gutter hooks with adjustable straps. 8x46½".

22N20028—Shpg. wt. 8 lbs. .... 4.63







1. A complete line of replacements for radio receivers, low power public address systems and intercommunication equipment. Highly efficient Alnico V magnets insure maximum life. Hum bucking coils built into field coil models. All models less transformers. For a complete listing of output transformers see listing at lower right. P4-X through P8-U 3-4 ohm V.C. P8-S through P12-T 6-8 ohm V.C.  
2. All Dynamics 3-4 ohms V.C.

P. M. SPEAKERS

Stock No.	Model	Size	Watts	Output trans.	Each
22N18960	P 4-X	4"	2.0	E	2.44
22N18952	P 5-X*	5"	2.5	E	2.91
22N18968	P 5-X	5"	2.5	E	2.53
22N18969	P 6-W	6"	3.5	E	3.32
22N18970	P 8-U	8"	6.0	D	4.91
22N19076	P 8-S†	8"	8.0	C	7.60
22N18971	P10-T	10"	8.0	C	6.26
22N18972	P12-T	12"	9.0	C	6.97

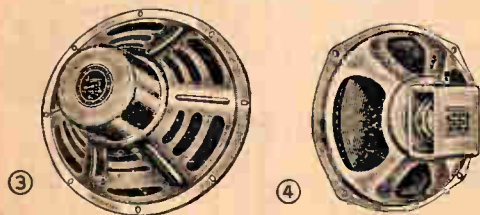
\*Voice coil impedance 40-50 ohms. †Extra heavy magnet.

FIELD COIL SPEAKERS

Stock No.	Model	Size	Watts	Field Ohms	Output trans.	Each
22N18953	F 4-X	4"	2	2800	E	3.18
22N18956	F 4-X	4"	2	450	E	3.03
22N18954	F 5-X	5"	2½	2800	E	3.29
22N18955	F 5-X	5"	2½	1800*	E	3.32
22N18958	F 5-X	5"	2½	450	E	3.15
22N18961	F 6-X	6"	3	2800	E	3.41
22N18981	F 6-X	6"	3	1800*	E	3.47
22N18959	F 8-W	8"	4	1800*	D	4.12
22N18984	F 8-W	8"	4	1000	D	3.91
22N18962	F10-S	10"	9	1500	†	7.47
22N18963	F12-S	12"	10	1500	†	8.58

†Fixed impedance x former recommended. \*Tapped 300 ohms.

JENSEN PM CONCERT SPEAKERS



3. Use in all types of radios, phonographs, public address equipment and the Jensen Bass Reflex enclosures and cabinets, listed on page 8. All models less output transformer. Transformers listed at right.

No.	Model	Size	Watts	V.C.	Trans.	Wt.	Each
22N19075	P 8-R	8"	9	6-8	C	4 lbs.	8.87
22N19073	P10-R	10"	10	6-8	B	5 lbs.	10.88
22N19077	P12-R	12"	12	6-8	B	7 lbs.	11.47
22N19071	P12-O	12"	13	8	B	9 lbs.	16.32
22N19069	P12-N	12"	15	8	A	16 lbs.	28.81
22N19078	P15-O	15"	14	8	B	15 lbs.	21.76
22N19079	P15-N	15"	20	8	A	17 lbs.	32.34

JENSEN EXTENDED RANGE SPEAKERS

4. ALNICO V PM speakers providing high fidelity performance up to 10,000 c.p.s. designed for monitoring in broadcast stations for replacement and modernizing units for F.M. and TV receivers for radio-phonograph combination, etc. Less output transformers.

Stock No.	Model	Size	Watts	V.C.	Output trans.	Shpg. Wt.	Each
22N18948	P 8-SH	8"	7.5	6-8	C	4 lbs.	8.35
22N19000	P12-SH	12"	9	6-8	B	5 lbs.	10.58
22N18999	P15-NH	15"	16	8	A	10 lbs.	33.66

JENSEN VOLUME LEVEL CONTROLS

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

- Model ST-276. 6-8 ohms, 5 watt rating. 22N9015—Shpg. wt. 1 lb. .... 1.29
- Model ST-760. 3-4 ohms, 5 watt rating. 22N9016—Shpg. wt. 1 lb. .... 1.29
- Model ST-761. 500-600 ohms, 15 watts. 22N9017—Shpg. wt. 1 lb. .... 2.06
- Model ST-411. 8 ohms, 15 watt rating. 22N9018—Shpg. wt. 1 lb. .... 1.76

GE REPLACEMENT SPEAKERS



A complete new line of finer, more sensitive loudspeakers designed to replace worn out speakers in radio sets. All contain Alnico V Magnet material, aluminum foil base voice coils, molded cones, universal, transformer mounting brackets. 3.2 ohm voice coils in each model.

Stock No.	Type	Size	Magnet		Cost Each
			Watts	Wt.	
22N19354	S400D	4"	4	1.3	\$2.50
22N19355	S525D	5½"	4	1.3	2.79
22N19356	S625D	6½"	4	1.3	3.23
22N19357	S650D	6½"	4	2.98	3.97
22N19358	S800D	8"	8	2.98	5.26
22N19359	S1000D	10"	12	6.8	8.97
22N19360	S1200D	12"	12	6.8	9.70

GE PUBLIC ADDRESS SPEAKERS

Newly designed Alnico V. P. M. speakers incorporate the latest engineering developments in scientific tone reproduction. Each is given a severe electrical test for assurance of longer life. Each is checked acoustically in a sound-proof booth. Recommended for use with public address systems and for replacement in home radios. 22N19351 is the 25-watt speaker used in all Lafayette Concord public address systems. Aluminum base voice coils provide higher wattage output and will not warp. Molded cones assure high fidelity and brilliant frequency response. Plated finish protected by new Lusteron treatment. Assembled with universal transformer mounting brackets. All have 8-ohm V. C.



Stock No.	Model No.	Alnico V Magnet Dia.	Wattage	Shpg. Wt.	Cost 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

For Jensen Coax Hi-Fidelity Speakers and Speaker Cabinets. See page 18.

JENSEN "SPEECH-MASTER"

Model AP-10. Desk type PM speaker employs Peri-Dynamic principle. For desk or wall mtg. Has "tilt" adjustment, sturdy base. Dustproof, fully enclosed. Internal bracket for ½x½" transformer included. Handsome gray hammered finish with satin chrome trim. Complete with base, swivel bracket plus 36" cord; 4 ohm voice coil; will handle 5 watts. Height 6¾"; Diameter 5"; Depth 5". 22N18929—Shpg. wt. 6 lbs. .... 7.94

Model AP-11. Similar to above, but less base and swivel bracket. Mounts in 4-27/64" cutout. 22N18930—Shpg. wt. 4 lbs. .... 6.64

JENSEN TYPE "H" SECTOR CABINET



New sector cabinet for 8" speakers especially designed for installations where multiple speakers are required. Constructed to fit anywhere, on walls, in corners, at intersection of wall and ceiling, or on posts. May be mounted in pairs or clusters for wide-angle sound distribution. Employs Bass Reflex principle—adaptable to all interior sound installations. Built around a frame of solid wood, with wood composition panels. Brown lacquer finish. Front is curved to a 1¼" radius. Brackets and screws furnished for mounting. Height 22¾". Width 17¾". Depth 8½". 22N18943—Shpg. wt. 12 lbs. .... 14.70

JENSEN UNIVERSAL OUTPUT TRANSFORMERS

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

No.	JENSEN	Application	Watts	Term.	Type	Each
22N19026	ZX-1007*	Univ. Tube	25	Pintip	A	5.73
22N19027	ZY-2005	Univ. Line	25	Pintip	A	5.73
22N19025	ZX-1005*	Univ. Tube	16	Pintip	B	4.23
22N19024	ZY-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	ZP-1024*	Univ. Tube	6½	Solder lug	D	1.53
22N19028	ZY-4002	Univ. Line	3½	Pintip	D	1.97
22N19029	ZP-1023	Univ. Tube	3½	Solder lug	E	1.26
22N19030	ZL-2021	Univ. Line	6½	Solder lug	E	1.26

\*All primary windings center tapped.





# LAFAYETTE-CONCORD SPEAKERS, CASES

## PORTABLE REFLEX SPEAKER ENCLOSURE

Insures perfect bass response. Designed to form two-piece portable carrying case for two 12" speakers. Compact, easy-to-carry style. Attractively covered in Tan simulated rawhide leather with contrasting Brown grill cloth. Includes recessed receptacles to guard connectors against damage. Strong carrying handles. Overall Size: 19 1/4" wide, 21 1/4" high, and 14" deep.

22N22055—Shpg. wt. 25 lbs.....**14.50**

## CARRYING CASE FOR AMPLIFIER, 12" SPEAKERS

Holds two 12" speakers plus amplifier! Amplifier bolts to panel—slides in or out of case quickly and easily. Holds any amplifier up to 15"x10"x8 3/8". Lock corner construction with metal corner shields. 4 snap locks. Made of 3/8" thick plywood covered with Tan simulated rawhide leather. Overall Size: 19" wide, 21 1/2" high, 14 1/4" deep.

22N22056—Shpg. wt. 24 lbs.....**11.25**

## CARRYING CASE FOR AMPLIFIER, 8" SPEAKER

Case holds both amplifier and 8" speaker at same time. Heavy plywood construction with handsome Tan simulated rawhide leather covering. Lock corner construction affords double protection. Four sturdy snap locks hold case securely closed. Simulated leather carrying handle. Overall Size: 13 x 10 5/8 x 17".

22N22059—Shpg. wt. 10 lbs.....**6.50**

## PORTABLE AMPLIFIER CASE

Covered with handsome Tan simulated rawhide leather to match reflex speaker enclosure. Top can be completely removed for easy access to amplifier. Two sturdy simulated leather handles. All corners protected by metal shields. Bottom is equipped with metal bumper slides. Overall Size: 15x15 1/2x20" wide.

22N22057—Wt. 17 lbs.....**9.75**

## CASE FOR AMPLIFIER AND 2 SPEAKERS

Handsome, super-portable carrying case for amplifier and two 8" speakers. Secure, sturdy, lock-corner construction. Made of thick plywood and covered with attractive Tan simulated rawhide leather. Provided with four strong snap locks to hold case tightly closed at all times. Simulated leather carrying handle. Overall Size: 13x10 5/8x17".

22N22054—Shpg. wt. 10 lbs.....**7.50**

## DUAL SPEAKER CASE

Houses two speakers up to 12" in diameter. Opens into two halves, each serving as an efficient baffle. Sturdy plywood with strong handle, black leatherette covering. Metal bumpers top and bottom. Plated snap lock fasteners (two each side). Size, closed, 9x14 1/4 x 22 1/4". Shpg. wt. 13 lbs

22N22062—Each.....**6.45**

Single speaker case similar to above. Size 14x14 1/4x9 1/4". Shpg. wt. 13 lbs.

22N22061—Each.....**4.15**

## LAFAYETTE-CONCORD Baffles

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

No.	Speaker	H. W. D.	Each
22N20060	6"	8 1/2 x 7 1/2 x 4 3/4	1.59
22N20042	8"	10 1/2 x 9 x 6 1/2	1.90
22N20055	10"	14 x 12 x 8 1/2	2.95
22N20056	12"	15 x 14 x 10	3.75

## WALNUT WALL Baffles

Beautifully polished walnut baffle for Deluxe sound systems. Frieze grille cloth.

22N21325	6-inch	.....	2.35
22N21326	8-inch	.....	2.65
22N21327	10-inch	.....	3.09

## LAFAYETTE-CONCORD WALNUT Baffle



Sturdily built framework of heavy veneer plywood paneled with a handsomely cut one-quarter plywood front panel. Two grooves on both sides of baffle give extended back-wave when mounted flush against walls or panels. Size: 14 1/4" wide, 16 1/2" high, 8 3/4" deep at top and 5 3/4" deep at bottom.

22N20051—Each.....**5.25**  
Lots of 2, each.....**4.95**

## G.E. 6x9-INCH OVAL SPEAKER

Designed to provide a maximum of tone quality and efficiency in a unit proportioned to fit in a restricted space. Oval-shaped cone provides large speaker tone quality under conditions normally calling for 6 1/2" speaker. Aluminum foil base voice coil and all-weld metal parts assembly, exclusive components of all G.E. speakers. Alnico V 1.47 oz.; magnet VC 3.2 ohms.

22N19363—Shpg. wt. 2 lbs.....**4.41**



## LAFAYETTE-CONCORD PM SPEAKERS

High quality permanent magnet speakers. High permeability Alnico V and Alnico III magnets used for utmost efficiency. One-piece seamless cones, plated metal frames. Voice coil impedance 3.2 ohms up to 8" size, 6-8 ohms above 8". All supplied less output transformer.



Stock No.	Dia. Inches	Watts		Depth	Wt.	Each
		nom.	peak			
22N19155	2	1	2	1-21/32	1	1.75
22N19268	3	2.5	4	2-1/8	2	1.75
22N19269	5	3	4.5	2-19/32	3	1.50
22N19270	6	4	6	2-15/16	3	2.35
22N19271	8	5	8	3-13/32	4	2.95
22N19290	10	8	10	6-1/2	6	4.90
22N19272	12	9	12	6-9/16	7	6.45
22N19258	4x6	3	4.5	2-1/2	1	1.65

## LAFAYETTE-CONCORD FIELD COIL SPEAKERS

High quality field coil speakers ideal for general replacement in AC-DC radios, amplifiers and intercommunications systems. All have frequency response from 100 to 4500 cps. when properly baffled. Seamless molded one-piece cones.

\*Tapped at 300 ohms

†6V Auto

No.	Dia.	Ohms	Watts	Wt.	Each
22N19279	3	450	2	3	1.68
22N19265	3	2750	2	3	1.68
22N19115	4	450	2 1/2	3	2.34
22N19261	5	6 volt†	2 1/2	3	2.49
22N19262	5	450	2 1/2	3	2.39
22N19263	5	3000	2 1/2	3	2.39
22N19264	5	1800*	2 1/2	3	2.43
22N19117	6	6 volt†	3 1/2	4	2.92
22N19118	6	1000	3 1/2	4	2.92
22N19119	6	1800*	3 1/2	4	2.92
22N19121	8	1000	4	6	3.63
22N19124	8	1800*	4	6	3.63
22N19292	8	2500	4	6	3.63
22N19125	10	1000	8	7	5.83
22N19126	12	1000	12	9	6.81

## QUAM ALNICO V PM SPEAKERS

Alnico V magnet provides maximum performance with minimum weight. High conversion factor. 3.2 ohm V.C. Less Trans. 4" sq., 5" and 6" round.



Stock No.	Dia.	Wattage Nor.-Peak	Alnico V Magnet wt.	Depth In.	Shpg. Wt. Lbs.	Each
22N19310	4"	2 1/2 33/4	.68 oz.	2 1/8	3/4	2.35
22N19312	4"	2 1/2 33/4	1.47 oz.	2 1/8	1	2.76
22N19313	5"	3 4 1/2	.68 oz.	2 1/8	1	2.47
22N19315	5"	3 4 1/2	1.47 oz.	2 1/8	1 1/4	2.85
22N19316	6"	4 6	1.00 oz.	2 5/8	1 1/4	2.82
22N19318	6"	5 7 1/2	2.15 oz.	2 7/8	1 1/2	3.44
22N19319	8"	6 8	2.15 oz.	3 3/8	2	4.23
22N19320	8"	10 12	4.64 oz.	3 7/8	4 1/4	6.00
22N19321	10"	9 11	3.16 oz.	4 1/2	4 1/2	6.17
22N19322	12"	12 15	4.64 oz.	5 1/4	5	7.44
22N19323	12"	15 20	6.80 oz.	5 5/8	5 1/2	8.53

## QUAM 4x6 OVAL PM & DYNAMIC SPEAKERS

Available in both dynamic and PM types, these highly efficient R M A Standard 4x6 speakers are for general replacement purposes. Depth 2 1/4", 3.2 ohm V.C. Less Transformer.

22N19300—Each.....	Alnico V	400-ohm Field	.....
22N19300—Each.....	2.62	22N19303—Each.....	3.12





**BEAM PORTABLE AMPLIFIED PHONOGRAPH**



World's smallest portable amplified phonograph. No bigger than a woman's make-up box, yet it contains a full size phono which plays both 10" and 12" records with a superb tone quality that will delight every music lover. This fully amplified Model B-41 has a true and amazing fidelity that will please the most critical music lover. Exclusive tracking arrangement allows the motor and turntable to slide forward when in use. Crysto-Dynamic, flyweight, velvet touch pickup brings out the full richness of tone which is in every record. The amplifier is balanced and distortion-free, activates an Alnico V speaker for gorgeous reproduction. Constant speed motor is self-starting. Cabinet is of solid wood construction, beautifully covered in leatherette for pleasing appearance and long life. Easily carried for operation anywhere you wish—it weighs only 7½ pounds! And it measures only 9 inches wide, 10 inches deep, and 5½ inches high. For use on 105-115 volts, 60 cycles AC only.

34N22667—Shipping weight 7½ lbs. Singly... **19.75**  
Each, in lots of 3..... **18.75**

**LAFAYETTE-CONCORD LOW-COST RECORD PLAYER**

You'll get hours of entertainment for yourself and your friends with this high quality instrument. Airplane-type luggage carrying case finished in durable two-color leatherette. Bright contrasting metal fittings and heavy duty plastic handle. Large PM speaker for full range tone quality. Modern amplifier uses 50L6 tube and 3Z5Z rectifier. Pickup arm has crystal cartridge for replaceable or semi-permanent type needles. For 110 V., 60 cycles.

34N22672—Wt. 10 lbs.. **16.95**



**LAFAYETTE-CONCORD PORTABLE RECORD PLAYER**

With three tube amplifier and special tone control. Plays up to 12-inch recordings with amazing power and fidelity. Play in any room, or take it to your friends. Cover can be closed while playing to eliminate needle noise. The sturdily constructed cabinet is covered with pebbled grained leatherette. Strong plastic carrying handle. Lightweight crystal pickup provides excellent tone and minimum record wear. Large PM dynamic type speaker for improved reproduction.

Size: 15"x15"x8½". For 110 V., 60 cycles.

34N22653—Shpg. wt. 15 lbs. Each, in single lots..... **23.95**  
Each, in lot of three..... **22.95**



**WIRELESS AND WIRED AUTOMATIC RECORD CHANGERS**



Beam automatic record changers for perfect enjoyment of records without having to jump up to change them. Plays twelve 10-inch or ten 12-inch records at one loading. New "Crysto-Dynamic" velvet touch pickup brings out the full richness of tone on your records. Self-starting, constant speed motors for accurate, wowless performance. Single button for all controls.

Streamlined wood cases, walnut finished to blend with any surroundings. Both models measure 12½"x11"x8½", and are for operation on 105-115 volt, 60 cycle AC only.

**Wireless Record Changer.** Plays through any Broadcast radio set without direct connections by means of two-tube distortion-free oscillator built into base.

34N22662—Shipping weight 16 lbs..... **29.50**

**Wired Changer** plays thru any radio by single wire connection.

34N22661—Shipping weight 18 lbs..... **24.50**

**WEBSTER 156 AUTOMATIC CHANGER IN PORTABLE CASE**

Plays ten 12" or twelve 10" records automatically, shuts off after last record is played. Constant speed 110 volts 60 cycle heavy-duty motor. Lightweight crystal pickup. Mounted in handsome Tan and Brown leatherette-covered portable carrying case with ample room for 3-4 tube amplifier and up to 8-inch speaker. Overall dimensions: 19½ in. x 15 in. x 9½ in.

34N22669—Shipping weight 30 lbs..... **38.95**

Portable case only, with uncut motor, amplifier boards.

22N22063—Shipping weight 15 lbs..... **11.95**

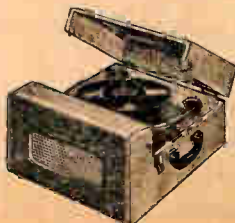


**PORTABLE CHANGER**

Model PA-8. Features Milwaukee-Erwood automatic record changer in an attractive two-tone fabricoid covered portable carrying case. Plays twelve 10-inch or ten 12-inch records. 3-tube (including rectifier) amplifier. 5-inch PM speaker. Tone control. Size: 16¾"x14½"x8½".

34N22666—Wt. 25 lbs... **38.95**

Each, in lots of 3..... **37.50**



**WIRELESS AND WIRED RECORD PLAYERS**



Plastic cased record players bring out the gorgeous richness and fullness of tone in the finest recordings. Plays all sizes and kinds of recordings from the smallest to 12-inch diameter. Equipped with the same "Crysto-Dynamic" pickup as in the changers above. Self-starting, constant speed

motors. Cabinets are of modern tear-drop design and made of shimmering, jewel-like Polystyrene to be a complement to any room. Both models are 12¼" long, 8½" wide, 3½" high, For operation on 105-115 volts, 60 cycles AC current only.

**Wireless Record Player.** Plays through any Broadcast radio set without any direct connection by means of distortionless two-tube oscillator built into base of unit.

34N22663—Shipping weight 5½ lbs..... **15.75**

**Wired Record Player.** Plays through any Broadcast radio set or amplifier by means of a single wire connection.

34N22660—Shipping weight 5½ lbs..... **11.95**

**PORTABLE RECORD PLAYER**

Constant-speed, wowless turntable and motor mounted in a modern sturdy portable carrying case, covered in durable hand-stitched two-tone Brown simulated alligator leatherette. Built-in amplifier uses 50B5 audio amplifier and 35W4 rectifier. Enclosed Alnico V speaker reproduces all tones with highest fidelity. Overall size: 11½"x5½"x13½". For use on 110 volts, 60 cycles AC only. Underwriters' Laboratories Approved.

34N22673—Wt. 13 lbs... **24.95**

**MIDGET PHONO PLAYER**

A complete amplified record player with its own 4-inch speaker, mounted in a brown simulated alligator leatherette covered portable case. Crystal pickup. Uses 50B5 tube and 35W4 rectifier. 7¾"x11"x5". For 110 volts, 60 cycles AC.

34N22674—Wt. 10 lbs... **18.50**





# AUTOMATIC RECORD CHANGERS

## STANDARD RECORD CHANGERS

### WEBSTER MODEL 156-1 RECORD CHANGER



Designed for trouble-free operation. Provides automatic playing of ten 12" or twelve 10" records with a minimum of waiting time between discs. Home recordings or "inside out" records up to 12" size may be played manually. Shuts off automatically after last record. Hi-fidelity crystal pickup.

Heavy duty, 4 pole motor for 110 volt, 60 cycles. Supplied with mounting template, instruction manual all mounting hardware for 3/8" board. Overall size: 14" x 14" x 9".

34N22500—Shpg. wt. 17 lbs. **26.66**  
 Model 156-27. Same as above, but with GE reluctance pickup. Preamplifier is needed between the pickup and phono input.

34N22502—Shpg. wt. 17 lbs. **27.93**

Model 146. Similar to Model 156-1, but does not shut off automatically. 12 7/8" x 12" x 9". Allow additional 1/2" front, side and rear for 12" record clearance.

34N22501—Shpg. wt. 15 lbs. **22.25**

### ALL-METAL BASES FOR WEBSTER RECORD CHANGERS

Brown wrinkle finish. Mtg. brackets welded in place. Felt feet.  
 34N22355—For Models 50, 146. Shpg. wt. 5 lbs. **3.12**  
 34N22356—For Models 56, 156-1, 156-27. Shpg. wt. 5 lbs. **3.44**

### GARRARD DELUXE "MIXER" RECORD CHANGER



Plays both 10" and 12" records in any assortment, any combination. 1-oz. high-fidelity crystal pickup, with frequency response from 30 to 8500 cps. Features include permanent jewel stylus, silent, governed motor plus special spring mountings for full floating non-microphonic installation. Dimensions: 15x13x5 1/2".

34N22550—AC Model, for 100/130 V. 60 cyc. Wt. 21 lbs. } **69.50**  
 34N22552—As above, with magnetic head. Less needle }

As above, but with GE Var. Reluctance pickup. Requires pre-amplifier.

34N22554—Shpg. wt. 21 lbs. **69.50**

Univ. AC/DC. Crystal pickup. 100/130 V. & 200/250 V. 25/60 cyc.  
 34N22551—Shpg. wt. 30 lbs. **89.50**

### VM AUTOMATIC INTERMIX CHANGER



Model 400. High quality, fool-proof record changer, handles ten 12" or twelve 10" or any ten records intermixed. Automatically shuts off after last record has been played. Uses "Muted Stylus" cartridge. Mtg. space, 13 1/2" x 12 1/4". Height 7 3/8". Complete with 6-ft. power cord and 4 ft. shielded cord.

34N22557—Shipping weight 12 lbs. **28.73**

Model 401C. As above, but with birch and maple base. **32.75**  
 34N22558—Shipping weight 15 lbs. **32.75**

### G-1 2-SPEED RECORDER AND PLAY-BACK UNIT



Cuts records up to 10" dia. at 78 or 33 1/3 rpm, plays records up to 12" at same speeds. Motor shifts speed by turn of a dial. Dynamically balanced rim drive type motor. 10" weighted turntable, cutter, crystal pickup, compensating switch, pickup and cutter arm rests, drawn steel base plates. For 110V. 60 cyc. 15" wide, 11 1/2" from front to back.

35N22516—Dual Speed Unit. Shpg. wt. 17 lbs. **28.95**

Similar to above, but single speed at 78 rpm. **24.51**  
 35N22517—Single Speed Unit. Shpg. wt. 17 lbs. **24.51**

### G-1 RECORD CHANGER AND RECORDER



Cuts records up to 10" dia. and plays twelve 10" or ten 12" records automatically—lowering cutting arm over disc starts recording operation. Convenient depth of cut adjustment on top of cutting arm. Self-starting, dynamically balanced motor. Non-jamming record handling fingers do not extend past record lead-in space. Easily handles records with either run-in or oscillating trip grooves.

Shock mounting provides isolation of entire assembly from cabinet. Brown iridescent finish. Furnished with crystal pickup, 10" weighted turntable, on-off switch, and spring mounting hardware. Base plate dimensions: 14x14".

35N22515—Record Changer & Recorder. Shpg. wt. 25 lbs. **43.50**

## DUAL SPEED CHANGERS FOR REGULAR AND MICROGROOVE LONG PLAY RECORDS

### WEBSTER DUAL SPEED CHANGER



Model 246. Newly designed dual speed record changer for use with the new long playing micro-groove 33 1/3 rpm records and standard 78 rpm records. New head has button for reversing to use either standard or micro-groove needle. Shift to M.G. automatically adjusts pickup arm pressure. Other features same as for Model 146 at left.

34N22577—Wt. 15 lbs. **29.25**

Model 256. Same dual speed and reversible head features as above, other features same as the Model 156-1 at left.

34N22592—Shipping weight 17 lbs. **33.91**

### VM MODEL 401-C WITH BASE

Automatically handles ten 12" records or twelve 10" records. Intermix feature permits playing 10" and 12" records together. Universal dual speed motor plays at 78 or 33 1/3 rpm. Quick, quiet changing cycle—takes less than 4 seconds. Records are gently lowered on spindle step. Single tone arm returns to rest and control knob moves to OFF after last record plays. Includes dual needle reversible cartridge and single knob motor speed control.



To play LP records simply rotate button in head of pickup arm until special Microgroove needle is in position. Turn motor speed control to operate 33 1/3 rpm motor, place LP record on turntable, and thrill to this new marvel of distortion-free, long-playing music. Beautifully styled—built for years of trouble-free performance. No adjustments necessary—all moving parts are adjusted at the factory, then riveted or pinned in position. Handsomely finished walnut and maple base. Includes two semi-permanent osmium-tipped needles for use with standard and LP records. Comes equipped with 6 foot Underwriter-Approved cord to fit standard wall plugs plus 4 foot shielded cord radio attachment.

34N22563—Model 401-C. Shipping weight 15 lbs. **34.99**

MODEL 400-C. Same features as above, but less wood base. Mounting space: 13 1/2" wide, 12 1/4" long. Height 7 1/4".

34N22564—Model 400-C. Shipping weight 12 lbs. **33.22**

MODEL 801-A. WITH WALNUT AND MAPLE BASE. Same electrical and construction features as Model 401-C above, but does not include intermixing record features.

34N22538—Model 801-A. Shipping weight 15 lbs. **26.12**

MODEL 800-A. WITHOUT BASE. Same electrical and construction features as above Model 801-A but less wood base. Mounting space: 13 1/2" wide, 14" long. Height 7 1/4".

34N22541—Model 800-A. Shipping weight 12 lbs. **23.42**

### PORTABLE RECORD CHANGER CASE

Lightweight, compact portable changer case with convenient, easy-opening cut-away top. Handsomely styled in Tan and Brown simulated leather fabricoid over all-wood construction. Attractive Ivory plastic trim throughout. Insides covered with Tan simulated leather fabricoid. Bright contrasting metal fittings and durable plastic handle for added beauty.



Ample room for mounting 3 or 4 tube amplifier and up to 8-inch speaker. Motor and amplifier boards uncut. 19 1/2 x 15 x 9 1/2".

22N22063—Portable Changer Case. Shpg. wt. 15 lbs. **11.95**

### DELUXE RECORD CHANGER CASE

Handsomely styled, lightweight and compact record changer case. Rugged construction with covering of extra-fine simulated alligator fabricoid. Strongly sewn edges reinforced with sturdy leather. Nicked locking snaps with key included. Blank covered motor board. Inside dimensions: 17x14 1/2 x 11".



22N22064—Wt. 10 lbs. **13.95**



**GENERAL INDUSTRIES DUAL SPEED PHONO MOTORS**



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 33 1/3 r.p.m. two-pole motor with 9" turntable and mounting plate. New stable rubber belt rim drive. For 110 volts, 60 cycles AC. Shipping weight 4 lbs.

34N22571.....**6.75**

Model DR. 78 and 33 1/3 r.p.m. shielded four-pole phono-motor with 10" turntable. 2-diam. motor shaft rim drive. 34N22572—Shipping weight 6 1/2 lbs.....**11.70**

**LYRIC RECORD CARRYING CASE**

Stores fifty ten-inch records safely and conveniently. Smooth, rounded corners, streamlined design with welded seams protect your records from scratches, dust and warpage. Extra strong steel and aircraft aluminum combined in construction to form a very light 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.



34N21885—Shipping weight 7 lbs.....**3.96**

**RECORD CASE**

A fitting companion to any record player or phonograph. Rugged case is finished in fine simulated leather. Brass fittings, plastic handle. Space for thirty 10-inch commercial or home records. With tab index. 11 1/4"x11 1/4"x4 1/2".

34N21873—Shpg. wt. 3 lbs.. **2.49**

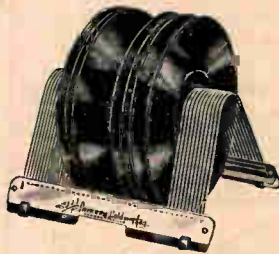
Each, lots of three.....**2.25**



**HARMONY RECORD RACK**

Holds up to fifty 10 or 12 in. records. Steel frame has sheathed wire dividers.

34N21874—Wt. 2 lbs.. **1.50**



**LYRIC ALBUM RACK**

New album rack holds up to 96 records in albums, requires only 16" of table or floor space. Attractive all metal mahogany finished base, sturdy Lyre design handles.

34N21898—Wt. 3 lbs.. **2.63**



**LYRIC RECORD HOLDER**

Files fifty 10" or 12" records in 12 inches. Indexing system. Copper plated handles.

34N21894.....**2.33**

**STANDARD ALBUMS**

Attractive maroon covers. 12 pockets. Opens flat. Index inside cover. Shpg. wt. 2 lbs.

34N21890—10-inch size.....**.78c**

34N21891—12-inch size.....**.94c**

**DELUXE RECORD ALBUMS**

Padded brown swirl leatherette. 12 pockets. Opens flat. Gold embossed Gothic design on back. Beautiful in appearance, unusually sturdy construction. Shpg. wt. 3 lbs.

34N21888—10-inch size.....**1.28**

34N21889—12-inch size.....**1.33**



**PHONO MOTORS—RECORD RACKS**

**G-I RIM DRIVEN MOTOR**

Model LX. Made by General Industries. Insulation between motor and mounting plate, and motor and turntable for quiet operation. Oil-less bronze bearings. Two-pole high speed motor. 78 r.p.m. 110 V. 60 cycles AC only.

34N22531—Shpg. wt. 5 lbs. **4.08**

Model LX3. Two-pole 33 1/3 r.p.m. motor with 9" turntable.

34N22573—Shipping weight 5 lbs.....**4.80**

Model RX3. Four-pole 33 1/3 r.p.m. motor with 9" turntable.

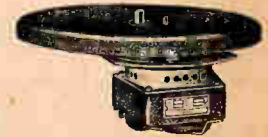
34N22574—Shipping weight 6 lbs.....**6.72**



**G-I RECORDING MOTOR**

Model RM 4. Constant speed 78 r.p.m. self-starting motor. Weighted 10" turntable for 10" and 12" records. Motor insulated from plate and table. Retractable drive pin. Rim driven. Depth 2-15/16" below plate. For 110 volts, 60 cycles AC operation only.

34N22528—Shpg. wt. 13 lbs. **9.90**



**CONSTANT SPEED MOTOR**

Model CX. Gear Drive. 78 r.p.m. Self-starting induction type. Fully enclosed helical cut gears in oil. Fan cooled. 4 1/4"x4 1/2"x3 1/8" deep. For 110 V., 60 cycles. 10" turntable.

34N22525—Wt. 10 lbs.....**8.13**

Model CX 3. 33 1/3 r.p.m.

34N22529—Wt. 10 lbs.....**9.63**



**DUAL SPEED MOTORS**

Model D. Powerful, governor controlled, gear drive motor. Lever type speed regulator and lever shift to 78 or 33 1/3 r.p.m. Fully enclosed with silent helical cut gears running in a bath of oil. 10" turntable. 110 V., 50-60 cycles.

34N22530—Shipping weight 13 lbs.....**15.90**

34N22533—With 12" turntable.....**16.45**

Automatic Stop for any above motors with 8", 9" or 10" Turntable.

34N22540.....**87c**



**ALLIANCE EVEN-SPEED PHONO-MOTORS**

Model 80. Rim-drive phono motor. 9" turntable. Constant speed (78 r.p.m.) self-starting, forced draft air-cooled. For 10" and 12" records. 110 V., 60 cycles only. Wt. 4 lbs.

34N22545.....**3.75**

Model MPO625. 33 1/3 r.p.m. motor with 10" turntable.

34N22561—Shipping weight 4 lbs.....**5.59**



**DUAL SPEED MOTOR**

Two rim-drive motors mounted on one base for 78 and 33 1/3 r.p.m. for up to 10" and 12" records. 10" flocked turntable. Lever speed selector. For use on 110 V., 60 cycles AC.

34N22562—Shpg. wt. 8 lbs...**10.58**



**PHONO OSCILLATOR**

Uses only 2 tubes instead of the usual 3 tubes. Easy to install and operate. Phono motor and pick-up connect directly to oscillator. Plays records through radio by simply starting record player and tuning in the oscillator on the radio as you do your favorite station. Tuning adjustment assures "clear channel."

34N22546.....**5.83**



**STROBOSCOPIC SPEED CHECKER**

When placed on turntable and illuminated with a bulb (50 or 60 cycle) indicates correct speed at 78 or 33 1/3 r.p.m.

35N197.....**7c**



**RECORD PLAYER CABINET**

Install your own record player or changer. Large enough to house record player with a base 12"x12". Will also accommodate a 3 or 4-tube amplifier and a 4" or 5" oval speaker. Constructed of mahogany veneer and selected hardwoods. Finished in mahogany. 15 1/2"x15 1/8"x8 1/2".

99N7072—Wt. 10 lbs.....**7.95**



NOTE: Dual-speed and 33 1/3 r.p.m. motors suitable for MG Long Playing Records.



**GE VARIABLE RELUCTANCE CARTRIDGE**



Latest development in magnetic pickups! Outstanding design gives freq. response and fidelity limited only by record itself. Output low .11 microvolts at 1000 cps.

Pre-amplifier needed between pickup and input. Needle pressure 3/4-1 1/4 oz. Size: 1 3/4" x 3/4" x 1 1/8". Mounting centers 1/2".  
**34N13464**—Shipping weight 8 oz. .... **4.67**  
 Similar to above, but for new L.P. records.  
**34N13485**—Size 1 3/8" x 3/4" x 1 1/8". Each. .... **5.85**  
**34N13466**—Same as 34N13464, but with Diamond Stylus. .... **29.04**

**GE SELF-POWERED PRE-AMPLIFIER**



Low voltage unit with rectifier for use with above. Operates directly from 117 volt, 60 cycle AC power source—employs shock mounted 6SC7 tube in equalizing circuit. Includes input jack for cartridge plus 14" long output lead with phono plug for connection to amplifier or receiver. With tube. Staybrite Lusteron finish. Chassis: 3 3/8" x 3 3/8" x 1 1/4". Overall height 3 3/4" Max.

**34N13473**—Shipping weight 2 lbs. .... **9.38**  
 Pre-Amplifier, same as above, but less rectifier. Plate and filament power obtained from receiver or amplifier.  
**34N13465**—Shipping weight 2 lbs. .... **5.82**

**GE PICKUP ARM**

Designed for reproducing 10 and 12 inch records with highest fidelity. Model UPA-002 is equipped with the famous GE Variable Reluctance Cartridge, this new tone arm provides excellent performance, with installation simplified and proper balance assured. Provides the best compromise between minimum tracking error and overall dimensions. Balanced at the factory—giving 1 oz. stylus pressure, which may be further adjusted if desired. Can be used with any record player without automatic changer. Single hole mounting—mounting template and mounting rest supplied. With 24" cotton covered shielded lead. Blue-Gray finish.



**34N13476**—Shipping weight 2 lbs. .... **8.20**



**ASTATIC CRYSTAL PICKUP MODEL S-8**

A—8" straight arm for up to 12" record. Ball bearing mount.  
**34N161**—Shipping weight 3 lbs. .... **6.56**

**ASTATIC "508" SERIES**

**MODEL NYLON-508 FOR 10 AND 12 INCH RECORDS**

B—Includes the new Nylon 1-J crystal cartridge with semi-permanent sapphire tipped replaceable needle for most nearly perfect reproduction possible. Output 1 volt, freq. response from 50 to 8000 cps. Spring counter balanced to insure correct needle pressure of 1 1/2 oz. Low tracking error, balanced side wall pressure.

**34N13410**—Shipping weight 2 lbs. .... **10.11**  
 Model 508 same as above, but with 1-71 standard cartridge.

**34N13411**—Shipping weight 2 lbs. .... **9.47**

**ASTATIC "400" PICKUP**

Professional type crystal pickup for broadcast and recording studio use. Includes Astatic Nylon-1-J cartridge with semi-permanent sapphire-tipped replaceable needle. Frequency response 50 to 8000 cps, output 1 volt. Needle pressure 1 1/2 oz. Swivel base raises or lowers between 1 1/8" and 2 1/8". Length 12 1/8".

**34N13412**—Shipping weight 2 1/2 lbs. .... **14.02**

**ASTATIC TONE EQUALIZER**

For use between crystal pickup and amplifier. Has 4 positions: Bass, Med., Hi., Off. Single hole mounting. Dimensions: 2" x 3/4".

**34N13475**—Shpg. wt. 1 lb. .... **1.94**



**MICRO-GROOVE PICKUPS FOR THE NEW LP RECORDS**

**ASTATIC MICRO-GROOVE PICKUP**

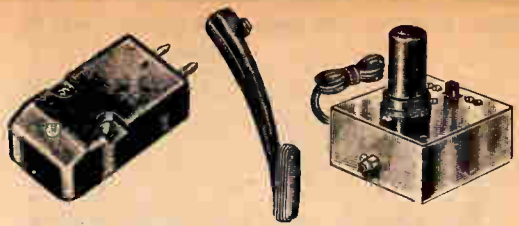
Latest design arm uses easily replaceable cartridges for L. P. or 78 rpm records. 5 gram needle pressure. 001 radius.

**34N13403**—Arm with L. P. cartridge. Wt. 2 lbs. .... **11.70**

**34N13404**—Replacement L. P. cartridge for above. .... } **5.82**

**24N13405**—78 RPM Replacement cartridge for above. .... } **5.82**

**SPECIAL: Combination offer: 34N13403 and 34N13405. .... 16.93**



**LEARTRON VARIABLE RELUCTANCE CARTRIDGE**

1. Now you can have professional quality reproduction at home! The design of this variable reluctance cartridge assures high fidelity response from 50 to 10,000 cps. Other performance-packed features include signal output of approximately 80 millivolts; retractable sapphire stylus to prevent damage to record or stylus when dropped on or slid across record; replaceable felt pad around stylus to electrostatically clean record. The cartridge is designed to operate at a stylus force of 15 to 30 grams. Includes standard 1/2" spaced mounting holes to fit most pickup arms.

**34N13478**—Shipping weight 2 oz. .... **7.06**

**LEAR VARIABLE RELUCTANCE PICKUP**

2. Seven inch tone arm complete with Leartron Variable Reluctance Cartridge. Extremely lightweight—reduces record wear to minimum. For 10" and 12" recordings. Attractive brown metallic finish.

**34N13480**—Shipping weight 1 lb. .... **9.11**

**LEAR MODEL A-171 PRE-AMPLIFIER**

3. Designed to make possible the use of the Leartron Variable Reluctance Pickup with any phono or radio which previously employed a crystal pickup. High impedance output connects directly to any phono input. Two-position switch for high frequency response or average frequency response. With tube.

**34N13479**—Shipping weight 2 lbs. .... **5.59**

**PICKERING CARTRIDGE REPRODUCER**



Designed to give the highest quality reproduction of records and transcriptions. Will fit into almost any arm—"Keystone Clip" mounting permits adaptation to a large variety 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**

**34N13494**—Model D-120M, with Diamond Tip. .... **24.90**

**MICROGROOVE** Cartridge, for new Long-Play records. .... **36.00**

**34N13495**—Model 140-DS, with Diamond Stylus. .... **36.00**

**EQUALIZER-AMPLIFIER:** for use with above Pickering Cartridges. .... **19.50**

**34N13496**—Model 125-H. .... **19.50**

**BRUSH CRYSTAL PICKUP**

For up to 16" records. Eliminates needle chuck and set screw. Small sapphire stylus brings impedance of vibratory system to very low value. Response flat within 2 db to 6000 cps, rising slightly to 10,000 cps. Complete with equalizer.

**34N13462**—Shipping weight 8 lbs. .... **29.40**



**SHURE CRYSTAL PICKUPS**

A—Muted Stylus Type for home or coin phonos. Reduces vertical response, eliminating noise and needle talk. Has specially designed muted sapphire 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 force is low 1 oz.; output voltage 1.8 Peak-free wide frequency response.

**34N13419**—Shipping weight 1 lb. .... **6.76**

B—"Glider" Type Pickup—Lightweight, replacement for pickups. Takes up to 12" records. High 1.4 volts output with response from 60 to 6000 cps. Changeable needle with pressure of 1 1/8 oz.

**34N13417**—Shipping weight 8 oz. .... **4.41**

Model 93AN. As above, but with quiet sapphire point needle.

**34N13418**—Shipping weight 8 oz. .... **5.06**

**SHURE MICRO-GROOVE PICKUP**

B—For use with lateral cut long playing micro-groove records at 33 1/3 r.p.m. Extremely low needle pressure at 1/4-1/2 oz. Insures minimum record wear. Output 1 volt at 1000 cps. Up to 12" records.

**34N13413**—Shipping weight 1 lb. .... **7.35**

**34N13400**—Replacement Cartridge for above. .... **5.00**

**34N105**—Replacement Needle for above. .... **1.18**



**NEW MICROGROOVE NEEDLES  
OSMIUM ALLOY TIP**

Scientifically designed for new, long-playing microgroove records.  $\frac{7}{8}$ " offset shank for high fidelity, softer tone. .001" radius.

34N120..... **69c**

**SAPPHIRE AND RUBY POINTS**

Permanent type full tone needles for the new long-playing microgroove records. Good for 5,000 plays. Has  $\frac{7}{8}$ " offset shank for softer tone. .001" radius.

34N121—Sapphire Point... **89c**  
34N122—Ruby Point..... **98c**

**SAPPHIRE TIP STRAIGHT NEEDLE**

True economical operation—designed for the new lightweight pickups and the new Long-Playing records. .001" radius.

34N123..... **89c**

**STANDARD JEWEL-TIP NEEDLES**

Duotone Durpoint—offset type, plays up to 4000 records.

34N443..... **59c**

Walco Tru-Trac—sapphire point, plays 5000 records.

34N170..... **88c**

**DUOTONE SHOCKPROOF NYLON NEEDLE**

Eliminates damage to needle or record if pickup arm accidentally falls. Osmium tip on steel spring set in Nylon bumper. 5,000 plays.

34N125..... **1.47**



**JENSEN ROYAL JEWEL NEEDLE**

Plays up to 10,000 sides! Genuine sapphire jewel point protects your records and provides exceptionally long life for the needle. Specially designed offset shank reduces noise and distortion to a minimum.

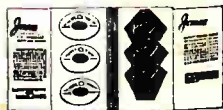
34N111..... **1.47**



**JENSEN NEEDLE PACK**

Sales kit demonstrates 3 Royal Jewel, 3 Classic needles.

34N110—Kit with 6 Needles **7.06**



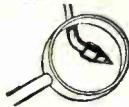
**JEWEL-TIPPED OFFSET-SHANK NEEDLES**

5000 plays. Cushion action design.

34N115..... **1.07**

1000 plays. Precious metal tip.

34N116..... **54c**



**PERMANENT TYPE PHONO NEEDLES**

**Sapphire Tip Needle.** Guaranteed for up to 8,000 plays. Tapered duraluminum shaft completely eliminates tone distortion. Sapphire jewel point, precision ground and Diamond polished. For tone arms with less than 2 1/2 oz. pressure.

34N117—List price 1.00..... **59c**

Lots of 24..... **50c ea.**

**Ruby Jewel Tip Needle.** 12,000 plays. Double bend tapered shaft absorbs shock. Diamond polished tip.

34N118—List price 1.50... Each... **88c** Lots of 20, each... **75c**



**TONE ARM AND HEAD**

Replacement for 95% of all non-electronic reproducers. Takes standard needles, plays up to 12" records. Black and nickel finish.

34N13415—Head only..... **98c**

34N13416—Arm only..... **1.25**



**CLARKSTAN PHONO NEEDLE PRESSURE GAUGE**

Indispensable to the serviceman! Checks weight and balance of pickup arm from one gram to four ounces.

Has 2 scales, plus calibrated dial with 4:1 scale multiplier. **1.50**

34N447.....

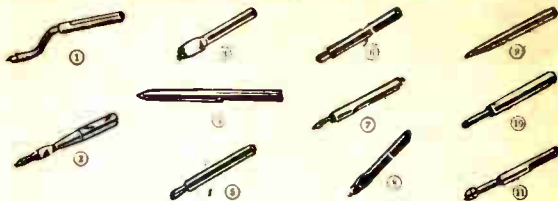
**ICA RECORD PLAYER SWITCH**

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 introducing hum. Cuts out radio on phono position. Shpg. wt. 1 lb.

9N12699..... **1.32**



**LONG LIFE PLAYBACK NEEDLES**



1. Precious Metal point needle with offset shank. For maximum record sides without changing.

34N199..... Each **88c**

2. Reliance 4000 play needle. Plastic case. Low surface noise.

34N443..... Each **59c**

3. Perno Point 2000 play needle with patented precious metal elliptical point. Standard for coin machines.

34N164..... Each **50c**

3. Reliance Permanent Point Needles, 2000 plays.

34N165..... Each **39c**

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

34N227..... Each **50c**

4. Deluxe Fidelitone "Floating Point" needle. As above, but good for 5000 plays.

34N478..... Each **1.00**

9. Presto transcription metal alloy needle. Long life, high-fidelity. Semi-permanent self-lubricating point. 40 to 50 hours on standard records, longer on home recordings.

34N286..... Each **69c**

11. Sapphire Tipped Playback Needle! Permanent needle—plays 2000 commercial records with minimum wear. Excellent frequency characteristics. A real value.

34N448..... Each **1.15**

**STANDARD PLAYBACK NEEDLES**

9. Red shank needles for acetate recordings. Individually shadow tested.

34N433—Package of 100..... Each **46c**

10. Filter point highly polished surgical steel needle. Shadow tested. Low surface noise. 10-15 plays.

34N209—Package of 10..... Each **8c**

34N222—Package of 25..... Each **21c**

9. High fidelity, shadow tested steel needle. Each good for 10 sides.

34N430A—Package of 10..... Each **8c**

34N430B—Package of 25..... Each **15c**

9. RCA steel phonograph needles.

34N153—Full Tone (Pack of 100) 34N160—Extra Loud (Pack of 100. 10 Packages assorted 1.00..... Each **15c**

9. RCA Chromium needles. Green shank.

34N357—Package of 6..... Each **25c**

10 Packages..... **1.80**

9. Green Shank shadowgraphed needles.

Good for 12 plays each.

34N432—Package of 100..... Each **46c**

10. RCA Red Seal needles, designed for Red Seal records.

34N141—Package of 50..... Each **30c**

10 Packages for..... **2.00**

**RECORDING NEEDLES**

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

35N191..... Each **3.23**

5. Like above, but with Long Shank to fit Presto Professional and Brush cutting heads.

35N198..... Each **3.45**

6. Sapphire cutter ground to W.E. spec. For acetate discs. About 10 hours life. Can be resharpened.

35N196..... Each **4.25**

6. Steel cutting needle for acetate; individually ground and lapped. Flattened shank.

35N439—Package of 3..... Each **39c**

7. Stellite cutter for acetate discs. Extremely quiet. Cuts hundreds of sides; can be resharpened.

35N337..... Each **1.18**

8. Individually polished steel cutter for acetate discs. Will cut 15 to 25 10-in. discs.

35N348—Package of 4..... Each **59c**

8. Alloy cutter for acetate; harder than steel. Polish while they cut. Hand lapped.

35N434A—Package of 5..... Each **95c**

35N434B—Package of 10..... Each **1.79**

# CARTRIDGES, DISCS, NEEDLES

## CRYSTAL PICKUP REPLACEMENT CARTRIDGES

A comprehensive lineup of replacement cartridges with their accompanying needles for all standard makes of crystal pickups as recommended by the manufacturers. Each and every cartridge is precision made and individually tested for rated frequency response and voltage.

### ASTATIC

No.	Model	Type	Pressure	Output	Each
34N140	B-4	2	2 3/4 oz.	2.5 V.	3.26
34N233	M-22	1	2 3/4 oz.	2.9 V.	3.26
34N13407	B-2	2	2 3/4 oz.	2.5 V.	3.26
34N13965	L-40A	1	1 1/4 oz.	.6 V.	2.62
34N13969	L-70	1	1 1/4 oz.	1.0 V.	3.26
34N13972	L-71	1	1 oz.	1.0 V.	3.91
34N13973	L-26A	1	2 3/4 oz.	1.4 V.	2.62
34N13981	L-72	1	1 1/4 oz.	3.5 V.	3.91
34N13982	L-75	1	1 1/4 oz.	.75 V.	3.26
34N13790	LT1MA	...	3/4 oz.	1.0 V.	4.12
34N13791	LT3MA	...	3/4 oz.	1.0 V.	4.12
34N13961	OT3M*	3	1 1/4 oz.	.75 V.	4.94
34N13962	OT3J†	3	1 1/4 oz.	.75 V.	5.23
34N13980	Nylon-1-J‡	3	1 1/4 oz.	1.0 V.	4.56

\*With precious metal needle. †With sapphire needle. ‡With nylon needle.

### REPLACEMENT NEEDLES FOR ABOVE

- 34N106—Precious metal tip for LT models.....1.47
- 34N101—Precious metal tip for Model QTM......88
- 34N102—Sapphire tip needle for Model QTJ.....1.47
- 34N114—Nylon needle for Model Nylon-1-J.....1.76

### RCA

Stock No.	Model	Pressure	Output	Each
34N215	31050	2.7 oz.	1.5 V.	2.52
34N249	37158	3 oz.	1.5 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
34N1397	38610	2 oz.	1.5 V.	3.33

### SHURE

No.	Model	Type	Pressure	Output	Each
34N13985	W57A	5	3/4 oz.	1.6 V.	3.26
34N13987	W58A	5	3/4 oz.	1.6 V.	3.26
34N13988	W59A	5	1 oz.	2.5 V.	3.26
34N13993	W56A	5	1 1/4 oz.	4.3 V.	3.91
34N13991	W60A#	4	1 oz.	1.8 V.	5.00
34N13992	W60B*	4	1 oz.	1.8 V.	4.41

#With sapphire tip needle. \*With osmium needle.

### REPLACEMENT NEEDLES FOR ABOVE

- 34N103—Sapphire needle for W60A.....1.47
- 34N104—Osmium tip needle for W60B......88

### WEBSTER

No.	Model	Type	Pressure	Output	Each
34N13966	N3	1	1 1/4 oz.	.7 V.	2.62
34N13970	D4	2	1 1/4 oz.	.7 V.	3.18
34N13971	*D5	2	1 1/4 oz.	.7 V.	3.91
34N13976	C2	6	2 3/4 oz.	2.0 V.	2.35
34N13977	C3	6	2 3/4 oz.	2.0 V.	2.35
34N13978	E4	1	2 3/4 oz.	1.5 V.	2.62

\*Includes needle.

### ROLL OFF RANGE CONTROL

7-position roll-off range control and microphone switch. Controls high frequency range when used with GE or Pickering magnetic phone pickups. Provides proper compensation when used with pre-amplifiers and switch for change-over to mike.

34N9019—In metal case 4x4x2".... 5.95

### SWEEP FREQUENCY RECORDS

Clarkstan records make instantaneous frequency response runs for checking audio systems and components. Correction factors included—no charts or graphs needed. Requires only oscilloscope. Range: 60-10,000 cps on 16", 70-10,000 on 12".

35N21871—12" at 78 rpm..... 6.60

35N21870—16" at 33 1/3 r.p.m.....15.00

### RCA MAGIC TONE CELL KIT

Magic Tone Cell with "Silent Sapphire" semi-permanent jewel tip needle for high-fidelity reproduction. Needle is protected by tiny bumpers and shock absorber. Output volts 1 1/2 at 400 cycles. Includes Magic tone cell, silent sapphire jewel point in cartridge form, and hardware.

34N13960—Each..... 4.70

## ASTATIC MAGNETO-INDUCTION PICKUP

A truly revolutionary development in cartridges! Contains no troublesome, dust-catching "air gap" as in other magnetic pickups. Offers transcription quality reproduction with 100 millivolts output, about 20 db greater than most magnetic pickups. Needle pressure is 1 oz. Velocity response flat to 12,000 cycles.

34N13792—M1-2..... 4.41



## ASTATIC EQUALIZER-AMPLIFIERS FOR ABOVE

Model EA-2. Two-stage amplifier with power supply using 6SC7 dual triode tube and Selenium rectifier. Use with cartridge above. Has adjustable "bass boost," high frequency "roll-off" and "turnover frequency" by switching internal components.

34N13795—Shipping weight 5 lbs..... 23.23

Model EA-1. Pre-amplifier equalizer with bass boost only. Necessary to have external power supply to operate.

34N13796—Shipping weight 2 lbs..... 5.82

## ELECTRO-VOICE SERIES 12 CARTRIDGES

Three basic types replace over 100 standard models! Simplifies servicing, reduces inventory. The EV Series 12 TORQUE DRIVE crystal pickup cartridge snaps firmly into a phosphor-bronze mounting plate which provides perfectly correct alignment at all times.



These compact, lightweight units feature the revolutionary new EV Torque Drive which provides a more efficient means of coupling the record groove to the crystal. Other features of this new principle include low-mass, no bearings or bushings, multiplied needle-force-to-crystal, high lateral and vertical compliance (free moving), low distortion, ideal frequency response, zero output for vertical movement, moisture-proofed crystal, whisker-type replacement needle in Osmium-tip or Sapphire-tip, plus choice of low, medium and high voltage output models.

No.	Model	Voltage	Needle Tip	Cost
34N13680	L12	1 volt	Osmium	4.41
34N13681	L12S	1 volt	Sapphire	5.00
34N13682	M12	1.5 volts	Osmium	4.41
34N13683	M12S	1.5 volts	Sapphire	5.00
34N13684	H12	2.5 volts	Osmium	4.41

## PRESTO "GREEN SEAL"

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

No.	Size	Each	Each
35N11992—12"	1.80	1.08	
35N11967—13 1/4"	2.25	1.35	
35N11993—16"	3.25	1.95	

## PRESTO "ORANGE SEAL"

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

No.	Size	Each	Each
35N11960—6 1/2"	.35	.21	
35N11961—8"	.50	.30	
35N11962—10"	.75	.45	
35N11963—12"	1.00	.60	

## AUDIODISCS "YELLOW LABEL"

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

No.	Size	Each	Each
35N11990—8"	.70	.42	
35N11997—10"	.90	.54	
35N11998—12"	1.50	.90	
35N11999—16"	2.70	1.62	

## AUDIODISCS "RED LABEL"

For professional use. "Acetate" coated on smooth aluminum base. Double-sided with 3 drive pinholes. .054" thickness.

No.	Size	Each	Each
35N11989—8"	.80	.48	
35N11994—10"	1.15	.69	
35N11995—12"	1.85	1.11	
35N11996—16"	3.40	2.04	

## RECORDISC "ORANGE LABEL"

Admirably suited to the average type of amateur transcription. Bond base, professional nitrate coated.

35N11969—Pkg. of 6 6 1/2"	.54
35N11970—Pkg. of 6 8"	.90
35N11971—Pkg. of 6 10"	1.26

Professional quality. .021" thick aluminum base with mirror-like nitrate finish.

No.	Size	Each	5 for
35N11972	6 1/2"	20c	.90
35N11973	8"	27c	1.20
35N11974	10"	40c	1.80
35N11975	12"	53c	2.40

Apply to recording blank before cutting. Prevents interference with cutting point, increases stylus life.

35N15302—2 oz. bottle..... 44c

## RECORDISC "PURPLE LABEL"

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

No.	Size	Each	5 for
35N11945	6 1/2"	14c	.60
35N11946	8"	20c	.90
35N11947	10"	30c	1.35

Professional quality blanks .063" thick. Uniform coat of cellulose nitrate on aluminum base. Two hole type.

No.	Size	Each	25 Ea.
35N11986	10"	.84	.66
35N11987	12"	1.36	1.09
35N11988	16"	2.50	2.00

## RECORD RENEWERS

For acetate records. Cleans, lubricates, protects, etc.

35N15301—2 oz. bottle..... 29c





## REKOKUT NEW 12" DUAL SPEED TURNTABLE



For professional performance at home. Consists of aluminum alloy casting turntable, precise-fitting turntable shaft, flush-mounted aluminum chassis and constant speed motor. Chassis is ribbed L beam type with rectangular dimensions that can be made to fit easily into a cut out panel.

Idlers are made of special Neoprene formula which gives maximum traction. Minimum attention is required due to special self-oiling features. Overall dimensions: 15x12 $\frac{3}{8}$ ", for Motor Board cut out length 11 $\frac{1}{4}$ x9" width.

35N22597—12" Turntable. Shpg. wt. 14 lbs. **89.50**

## REK-O-KUT "MASTER-PRO" OVERHEAD CUTTER



A truly professional machine priced within the reach of the home recording enthusiast, the amateur, and the professional who wants a small machine capable of cutting up to 13 $\frac{1}{2}$ " discs. Outstanding features include: self-aligning drive flange for driving the leadscrew and constant mesh feednut to prevent double cutting.

New magnetic cutter is flat from 40 to 7,000 cps. Universal ball adjustment permits easy mounting and aligning to any 12" turntable. Automatic safety raises cutter when finished.

35N22581—With 8-Ohm Cutter. Shpg. wt. 12 lbs. **89.50**

35N22582—With 500-Ohm Cutter. Shpg. wt. 12 lbs. **92.50**

## REK-O-KUT "CHALLENGER" 12" DISC RECORDER



Professional quality for the musician, amateur enthusiast, educator and professional at a price within reach of all. Includes such exclusive features as the 'Master-Pro' patented overhead feed mechanism, unmatched in performance and construction; the dual speed 12" turntable and chassis of precisely-machined aluminum castings; and self-oiling system.

Changes speed simply and instantaneously from 78 or 33 $\frac{1}{3}$  rpm—no readjusting of motors, turning over of idlers or removal of motor pulley necessary. High Fidelity Amplifier with frequency range 50 to 15,000 cycles  $\pm$  1 db. Has 3 input channels, bass and treble equalization for both speeds—built-in monitor switch and V.I. meter. 16" pickup arm allows the playback of 16" transcriptions as well as 12" types. Includes 8" speaker baffled for maximum tone quality. Complete with amplifier, speaker, instructions.

35N22578—Challenger 12" Recorder. Shpg. wt. 80 lbs. **329.95**

35N22579—Amplifier only mounted on rack panel. **89.95**

## REK-O-KUT RECORDING EQUIPMENT



## NEW 16" CUTTERS

Magnetic overhead cutter with mechanical spiraling device—cuts up to  $\frac{1}{8}$ " pitch. Two built-in over-running clutches—one in lead-screw for spiral, other in crank to permit lead-screw to continue without hesitation, avoiding over-cut groove. 120 lines/inch; outside in. Universal mount. Impedance 8 ohms.

35N22583—Wt. 17 lbs. **215.00**

As Above, less spiral feature.

35N22584—Wt. 17 lbs. **175.00**

16" Crystal Cutter with Spiral.

35N22591—Wt. 17 lbs. **215.00**

16" Crystal Cutter less Spiral.

35N22590—Wt. 17 lbs. **175.00**

Special Hi-Fidelity Transformer.

35N22593—Wt. 4 lbs. **9.50**

## 16" MOTOR

Precision dual-speed 16" lathe turned, dynamically balanced 25 lb. cast-iron turntable with 1" dia. shaft. 1/20 H.P. constant speed motor. One 78, one 33 $\frac{1}{3}$  rpm idler. Adjustable stops regulate idler pressure against turntable. 10 lb. machined mounting base with integral lathe-bored and lapped turntable bearing. Wt. 50 lbs.

35N22595 **165.45**

DELUXE 16" TURNTABLE with semi-automatic speed shift.

35N22596—Wt. 40 lbs. **195.45**

RECORDING LEVEL METER in case. Operates from output of 8, 15, 200 or 500 ohm amplifier.

35N22594 **29.50**

## RECORDING UNITS, ACCESSORIES

### PRESTO MODEL K RECORDER—PLAYBACK UNIT

Records up to 15 minutes a side on 13 $\frac{1}{4}$ " disc. Has 2 speeds, 33 $\frac{1}{3}$  or 78 rpm, no belts. 12" turntable, precise-fitting turntable shaft, flush-mounted aluminum chassis and constant speed motor. Top grade magnetic cutter and pickup heads, flat 80-5000 cps. Stylus-saving cam-type lever lowers cutter. 112 line/inch under-panel cutting mechanism with replaceable worm for outside-in or inside-out.



Other features include 110 db amplifier gain, flat 50-8000 cps; HF equalizer for 33 $\frac{1}{3}$  rpm recording, maximum 20 db up at 6 KC; playback scratch filter, maximum 25 db down at 5 KC; Volume-indicating meter; monitoring jack; 8" PM speaker in baffled case cover with extension cable. For operation on 115 volts, 60 cycles AC. Complete with 6 tubes. 19 $\frac{1}{2}$ x15 $\frac{1}{2}$ x14".

35N22585—In Portable Case. Wt. 69 lbs. **348.00**

### PRESTO 16" 2-SPEED PORTABLE RECORDER

Handles up to 17 $\frac{1}{4}$ " transcription masters. Uses Presto I-C cutter, with vibration damper plus pulley-driven turntable and highest quality 16" magnetic pickup. 2-mike mixer, high and low freq. equalizers, and changeover switch for continuous cutting. Model Y2 consists of 75-A recorder and playback in own case and 87-A 8-tube amplifier and 10" PM dynamic speaker in own case. Many other features—write for literature.

35N22586—Mod. Y-2, for 115 V., 60 cyc. AC. Wt. 153 lbs. **741.00**

35N22587—Mod. 75-A only. 20 $\frac{1}{2}$ x11x19". Wt. 68 lbs. **451.00**

35N22588—Mod. 87-A only. 23 $\frac{1}{2}$ x12x20". Wt. 85 lbs. **290.00**

### MASCO DUAL-SPEED 16" TRANSCRIPTION PLAYER



Deluxe portable reproduces transcriptions up to 16" and standard size recordings. Built-in wide-range 5-watt amplifier makes it adaptable as P.A. system also. Individual bass and treble equalizers. Phono input channel compensated for uniform response. Separate high-gain, high-impedance mike input channel.

Takes crystal or high-impedance microphone. Heavy-duty 10" PM speaker. Motor drives 12" turntable at 33 $\frac{1}{3}$  or 78 rpm. Low-pressure crystal pickup. Tubes include: 2—6SL7GT, 1—6V6GT, 1—6X5GT Rectifier. Brown alligator fabrikoid case, 17 $\frac{3}{4}$ x22x10 $\frac{3}{4}$ ". For 115 volts, 60 cyc. AC.

35N22671—Shpg. wt. 36 lbs. . . 90.40, less 2%, net. **88.70**

### LIVINGSTON REPRODUCER ARMS

Features include: low friction horizontal and vertical bearing surfaces, vernier adjustment, adjustable height, low arm resonance. For cartridges with  $\frac{1}{2}$ " mtg. centers.



34N13482—16" Reproducer Arm. Shpg. wt. 2 lbs. **12.95**

34N13483—12" Reproducer Arm. Shpg. wt. 2 lbs. **9.95**

### PARA-FLUX PLAYBACK EQUIPMENT



### REPRODUCERS

16" magnetic, with equalizer and 5-pos. de-emphasis switch. Outputs 30 to 600 ohms at -43 to -53 db below 1 mw. Interchangeable heads. Adjustable height. Flat 40-11,000 cps. Permanent diamond stylus pressure 35 grams. Moving mass 22 milligrams. Complete Head, Diamond, Arm, Equalizer and Switch. Model UL-1DA with Universal Head.

35N13454—Wt. 9 lbs. **166.50**

35N13455—Model VL-1DA with Vertical Head. **150.00**

Wt. 9 lbs.

35N13456—Model LL-1DA with Lateral Head. **120.00**

Wt. 9 lbs.

Replacement heads \$35.00 on exchange basis.

### 16" TURNTABLE

Model TP-16, companion to the Para-Flux Reproducer. Smooth, silent, trouble-free. Meets all requirements of Broadcasting studios. 78 or 33 $\frac{1}{3}$  rpm. Heavy-duty constant-speed motor with oversize bronze bearings and dual speed control, in full-floating mount on steel base plate. Speed control completely disengages driver and idler in "off" position, thus preventing "flats" on the drive-mechanism surfaces. Specially formed spindle gives "wowless" performance. Shipped in wood utility mounting suitable for permanent installation. Overall dimensions: 21 $\frac{1}{2}$ x16x5 $\frac{1}{2}$ ".

35N22509 **78.80**



# FAMOUS BURGESS DRY-CELL 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, † tapped at 22½ volts; # tapped at 3, 4½, 16 and 22½ volts.

Cat. No.	Burgess Type	Volt	Size	Shpg.		Net Each	
				Wt. Lbs.	Std. Pkg.	Sgls. Lots	Std. Pkg.

### "B" BATTERIES

20N19822	21308PI†	45	8 1/2 x 4 1/2 x 7 3/4"	15	6	2.73	2.48
20N19832	21308SC†	45	8 1/2 x 4 1/2 x 7 3/4"	15	6	2.73	2.48
20N19824	10308PI†	45	8 1/2 x 4 1/2 x 7 3/4"	13	6	2.41	2.19
20N19831	10308SC†	45	8 1/2 x 4 1/2 x 7 3/4"	13	6	2.41	2.19
20N19825	2308PI†	45	8 1/2 x 2 3/4 x 7 1/8"	8	6	1.98	1.80
20N19829	2308SC†	45	8 1/2 x 2 3/4 x 7 1/8"	8	6	1.98	1.80
20N19861	5308	45	4 1/2 x 2 1/2 x 5 3/8"	3 1/2	10	1.65	1.50
20N20683	X30X	45	1 1/2 x 2 1/2 x 5 3/8"	1	6	2.86	2.60
20N19865	Z30NX	45	1 1/2 x 3 1/2 x 5 1/8"	1 1/2	10	1.98	1.80
20N19826	5156PI#	22 1/2	4 1/2 x 2 1/2 x 2 5/8"	2	10	1.31	1.19
20N19862	5156SC#	22 1/2	4 1/2 x 2 1/2 x 2 5/8"	2	10	1.31	1.19
20N19863	4156	22 1/2	3 1/2 x 2 1/2 x 2 1/8"	1	10	1.00	.91
20N20682	A15ST*	22 1/2	3 1/2 x 2 1/2 x 2 5/8"	1	6	1.18	1.07

### "C" BATTERIES

20N19868	5540	7 1/2	4 x 7/8 x 2 3/8"	1	10	69c	63c
20N19866	5360	4 1/2	2 1/2 x 1 3/4 x 2 1/8"	1 1/2	10	33c	30c
20N19827	2370PI	4 1/2	3 1/2 x 1 3/4 x 2 1/8"	1	10	57c	52c
20N19867	2370BP	4 1/2	3 1/2 x 1 3/4 x 2 1/8"	1	10	57c	52c
20N20686	B3BPX	4 1/2	2 1/2 x 1 3/4 x 2 1/8"	1 1/2	6	84c	76c

### "A" BATTERIES

20N20680	F4BP	6	2 5/8 x 2 5/8 x 4 1/2"	1 1/2	10	56c	51c
20N20679	F2BP	3	5 3/8 x 1 5/8 x 4 1/2"	2	10	1.05	95c
20N19844	F2BP	3	2 1/2 x 1 1/2 x 4 1/2"	1	10	53c	48c
20N20685	B2BP	3	1 5/8 x 1 1/2 x 2 1/8"	1 1/2	6	48c	44c
20N20611	42B	3	2 1/2 x 1 1/2 x 2 1/8"	1 1/2	10	23c	21c
20N20678	F2BP	1 1/2	2 1/2 x 1 1/2 x 4 1/2"	1	10	53c	48c
20N20681	44	1 1/2	1 1/2 dia. x 4 1/8"	1	10	66c	60c



### STANDARD BATTERY PLUGS

Fit all batteries above with PI after their numbers. Will also fit similar other make batteries. With fastenestock clips for cable.

- 20N20591—Illust. 1—3 prong for 45 Volt. Ea. 9c. Lots of 10 .81
- 20N20592—Illust. 2—3 prong for 4½ Volt. Ea. 10c. Lots of 10 .90
- 20N20593—Illust. 3—5 prong for 22½ Volt. Ea. 16c. Lots of 10 1.44

### PORTABLE BATTERY PLUGS



- 20N20590—(4) 2-prg. "A"—Used with 4½ V. type. Ea. 3c. Lots of 10, 27c
  - 20N20595—(5) 2-prg. "A"—Used with 2½ V. Type. Ea. 3c. Lots of 10, 27c
  - 20N20596—(6) 3-prg. "B"—Used with Portable cells. Ea. 4c. Lots of 10, 36c
  - 20N20597—(7) 4-prg. "A&B"—Comb. 1½ V. "A" & 90 V. "B". Ea. 5c. Lots of 10 .45c
  - 20N20598—(8) 2-prg. "A"—Used with 6 V. type. Ea. 3c. Lots of 10 . . . . .27c
  - 20N20599—(9) 4-prg. "A&B"—Comb. 6 V. "A," 90 V. "B." Ea. 5c. Lots/10 45c
  - 20N20585—(10) 4-prg. "A"—Used with 7½ V. type. Ea. 5c. Lots of 10, 45c
  - 20N20586—(11) 4-prg. "A&B." Comb. 1½ "A," 63-90 "B." Ea. 4c. Lots/10 36c
  - 20N20588—(12) 4-prg. "A&B." Comb. 6 "A," 75 "B." lb. . . . .5c 10 . . . . .45c
  - 20N20589—(13) 4-prg. "A&B." Comb. 9 "A," 90 "B." Ea. 5c. Lots/10, 45c
  - 20N20594—(14) 5-prg. "A&B." Comb. 9 "A," 90 "B." Ea. 7c. Lots/10, 63c
- SNAP FASTENER TERMINALS**  
Same battery terminals as used for Eveready types 430, 435, 455, 467; Burgess type XX-45 and XX30 mid-gate batteries. Sturdy, well-made terminals. Male and female units sold separately.
- 20N11733—Male Snap Fastener.
  - 20N11734—Female Snap Fastener.
- Any above, Ea. 4c. Lots of 10, 32c

Recognized by their stripes—remembered for their service—Burgess batteries have been used for many years by governmental departments and commercial organizations demanding superior quality and performance. There is good reason, too . . . these batteries are made only of the finest materials. Lafayette-Concord's terrific turnover assures you of fresh, in-date batteries always—batteries at the peak of their service life.

### "A" and "B" BATTERIES FOR HEARING AIDS

Stock No.	Burgess No.	Volts	Shpg. Wt.	Size	Std. Pkg.	Price Each	
						Sgls.	Std. Pkg.

20N20688	1ES	1 1/2	2 oz.	1 1/2 x 3 1/2 diam.	60	7c	6 1/2c
20N20689	2ES	1 1/2	5 oz.	2 1/2 x 1 1/2 diam.	96	7 1/2c	6 1/2c
20N20691	TE	1 1/2	5 oz.	3 7/8 x 1 1/2 diam.	96	19c	17c
20N20687	2ZE	1 1/2	1 1/2 oz.	1 1/2 x 1 1/2 x 1 1/2	100	15c	14c

### STANDARD "B" BATTERIES

20N20693	XX22E	33	7 oz.	2 5/8 x 1 3/8 x 3 1/8	10	1.23	1.12
20N20694	XX30E	45	7 oz.	2 5/8 x 1 3/8 x 3 1/8	20	1.45	1.32
20N20677	U10E	15	2 oz.	1 x 1/2 x 1 1/2	20	.62	.56
20N20676	U15E	22 1/2	2 1/2 oz.	1 x 1/2 x 1 1/2	20	.78	.71
20N20675	U20E	30	3 oz.	1 x 1/2 x 2 1/2	20	.95	.86

### FOR WESTERN ELECTRIC ORTHO-TECHNIC MODELS

20N20699	T2WE	3	9 oz.	1 1/2 x 2 1/2 x 4 1/4	12	84c	76c
20N20698	T3WE	4 1/2	12 oz.	1 1/2 x 3 1/4 x 4 1/4	12	74c	67c

### IGNITION—LANTERN—TELEPHONE BATTERIES

Stock No.	Burgess No.	Volts	Shpg. Wt.	Size	Std. Pkg.	Price Each	
						Sgls.	Std. Pkg.

20N19858	4FH	1 1/2	1 1/2 lbs.	2 5/8 x 2 5/8 x 4 5/8"	20	.51	46 1/2c
20N19846	4F2H	3	3 lbs.	2 5/8 x 3 1/2 x 5 5/8"	8	.99	90c
20N19837	4F4H	6	7 lbs.	2 5/8 x 4 1/2 x 6 3/8"	6	2.38	2.16
20N19838	4FH	6	1 1/2 lbs.	2 5/8 x 2 5/8 x 3 3/8"	20	.58	52 1/2c
20N19839	4F5H	7 1/2	8 lbs.	7 1/2 x 3 1/2 x 5 1/2"	6	3.06	2.78
20N19841	4F6H	9	9 1/2 lbs.	8 1/2 x 3 1/2 x 5 1/2"	6	3.51	3.19

### FLASHLIGHT CELLS

No. 1, 2, and Penlite cells—superior quality batteries constructed for intermittent use in lanterns and flashlights.

- 20N20621—No. 1 Cell. Size: 1 7/8 x 1".
- 20N20622—No. 2 Cell. Size 2 5/8 x 1-5/16". Either above, each. . . . . 6 1/2c
- 20N20623—Penlite cell. 2 5/8 x 3 7/8". . . . . 5c

### PORTABLE "A" BATTERIES

Stock No.	Burgess No.	Volts	Uses Plug No.	L	Size W	H	WILL REPLACE		Shpg. Wt. Lbs.	Std. Pkg.	Price Each	
							Ever-easy	Ray-o-Vac.			Sgls.	Std. Pkg.

### PORTABLE "B" BATTERIES

20N20627	XX45	67 1/2	snap-on	2 1/2	4 x 1 1/2 x 3 3/8"	467	4367	1	12	1.88	1.71
20N20612	A30	45	6	3 1/2	2 1/2 x 4 3/8"	430P		3	6	1.65	1.50
20N20614	B30	45	6	4 1/2	2 1/2 x 5 5/8"	762	P5303	3	12	1.65	1.50
20N20616	Z30	45	6	3 1/2	2 1/2 x 4 3/8"	738	P7R30	2	6	1.98	1.80
20N20617	M30	45	6	3 1/2	1 1/2 x 5 1/2"	482	P5S30	4	12	1.65	1.50
20N20615	XX30	45	snap-on	2 1/2	2 1/2 x 3 3/8"			12 oz.	12	1.35	1.23

### COMBINATION PACKS FOR PORTABLES AND FARM USE

20N19871	SDA60	1 1/2 & 90	7	5 1/2	2 1/2 x 6 1/2"			5			3.25
20N19874	6FA60	1 1/2 & 90	11	11 1/2	1 1/2 x 6 1/2 x 1 1/2"		AB84	4			3.25
20N19875	4GA42	1 1/2 & 63	11	9 x 2	4 3/8"		AB419	5			2.46
20N20618	G4B50	6 & 75	12	12 3/4	2 1/2 x 4 1/2"			7			3.15
20N20624	6TA60	1 1/2 & 90	7	10 x 2 1/2	4 1/8"			5 1/2			3.60
20N20620	G6B60	9 & 90	13	13 3/4	2 1/2 x 4 1/2"			8 1/2			3.74
20N19872	F6A60	7 1/2 A, 9A, 90B	14	9 1/2	2 1/2 x 4 1/2"		AB994	6			3.35
20N19873	DSA60	7 1/2 A, 90B	14	9 1/2	2 1/2 x 4 1/2"			5			3.55
20N19876	2FA60	6A, 90B	9	10 1/2	1 1/2 x 4 1/2"		10896	9			4.59
20N19877	F5M45	7 1/2 A, 67 1/2 B									
20N20619	17GD60	1 1/2 A, 90B	7	15 1/2	1 1/2 x 4 3/8 x 7 1/8"	748	AB82	22			5.62
20N19859	2TXX40	1 1/2 A, 60B	11	12 1/2	1 1/2 x 4 3/8 x 7 3/8"			6			2.10
20N19860	FAA50	6A, 75B	12	9 1/2	2 1/2 x 4 1/2"			6			3.10
20N19864	G5A42	7 1/2 A, 63B	14	9 1/2	2 1/2 x 4 1/2"		AB-794	5			2.95
20N19869	TSZ60	7 1/2 A, 90B	14	9 1/2	2 1/2 x 3 3/4"			4			3.85
20N19870	G6M60	7 1/2 A, 9A, 90B	14	10 1/2	1 1/2 x 3 3/8 x 4 5/8"		AB-878	7			3.74



**SELENIUM BATTERY ELIMINATORS**



Designed to replace "A" and "B" batteries in portable and farm radios using 4, 5, 6, and 7 tubes. Supplies "A" and "B" power to these sets, converting them for use with the house current. Operates from 110 volts, 60 cycles AC—easy to install.

Provides completely filtered and humfree reception. Contains no liquid—can be used in any position. Uses no tubes. Universal sockets for all type of battery plugs. Delivers 1.5 volts "A" and 90 volts "B" voltage. 2½x4¼x6¾".

21N15708—Selenium Eliminator. Shpg. wt. 5 lbs. **9.85**  
Same features as above, but uses tube rectifier.

21N15704—Eliminator With Rectifier. Shpg. wt. 5 lbs. **8.82**



**GE "ONE-DAY" 6-VOLT BATTERY CHARGER**

1. Compactly constructed, modernly designed selenium rectifier type provides efficient, noiseless operation. Delivers 7 to 4 amperes tapering charge. Includes AC cord, DC leads with battery clips, and pilot light. For 115 V 60 cyc. 7¼x5x5".

21N15695—Shpg. wt. 7 lbs. Each 12.87. Lots of 6, each. **11.15**

**GE "OVERNITE" 6-VOLT BATTERY CHARGER**

1. For car, truck, and tractor batteries! Similar to model above but for use where higher charging current is required. Delivers 12 to 7 amperes tapering charge, will charge average discharged battery in 12 hours or less. Dimensions: 7¼x25x6".

21N15697—Shpg. wt. 8 lbs. Each 18.01. Lots of 6, each. **15.61**

**MALLORY 6AC6 6-VOLT CHARGER**

2. Delivers 6 to 4 amperes, employing dry-disc rectifier. Includes circuit breaker plus larger meter indicating rate of charge. 115 V 50-60 cyc. AC. With AC, DC cords. 6x8¼x4½".

21N15698—Shipping weight 7½ pounds. **12.38**

**MALLORY 6AC10 6-VOLT CHARGER**

2. Charges overnight! Delivers 10 to 7 amperes employing dry-disc rectifier, larger meter, circuit breaker and provision for thorough ventilation. For 115 volts 50-60 cycles AC. Includes 6-ft. AC cord, 6-ft. DC cord. 6¾x10¾x5¾".

21N15700—Shipping weight 12 pounds. **16.95**

**MALLORY 12AC5 12-VOLT CHARGER**

2. Heavy duty charger for 12-volt batteries for use in aircraft, trucks, boats, buses, etc. Delivers 5 to 3 amperes, employing dry-disc rectifier, meter, circuit breaker, plus ventilation. With AC cord and DC cord. 6¾x10¾x5¾".

21N17217—Shipping weight 12 pounds. **22.18**

**MALLORY 6AC4 6-VOLT BOOSTER**

3. Dry-disc rectifier type with 4 to 2 amperes tapering charge. Has external circuit breaker with quick front reset. Perforated for thorough ventilation. For use with 115 volts, 50-60 cycle AC. With 6-ft. AC cord, 4-ft. DC cord. 4½x7½x3½".

21N15696—Shipping weight 5 pounds. **9.11**

**MALLORY 6AC60 6-VOLT CHARGER**

"Quick Starter." All metal rectifier type for 6-volt batteries—delivers 60 to 40 amps tapering charge. Exclusive self-healing feature, charging indicators, 6-position control switch, cable rack, fan-cooled. For use with 115 volts, 50-60 cycles AC. With AC, DC cords. 10¾x18x9¾".

21N15692—Shpg. wt. 47 lbs. **77.91**

**MALLORY AUTOMATIC TIMER CONTROL**

Companion unit to charger above. Variable time setting up to 57 minutes. Contacts rated 20 amperes, 115 volts AC or 10 amperes, 230 volts (suitable for light DC loads). May also be used to control many household appliances.

21N15690—Shpg. wt. 2 lbs. **6.37**

**MALLORY POLARIZED RECEPTACLE WITH PLUG**

For use with chargers and boosters above. Makes possible plug-in connection of charger to car battery. Easily attached.

21N15691—Shipping weight 6 ounces. **1.18**

**INSTRUMENT PANEL PLUG FOR BATTERY CHARGERS**

Permits charging of batteries through cigarette lighter receptacle! Plug fits into lighter receptacle on instrument panel. Six inch leads connect to clips on leads of chargers.

21N15689—Shpg. wt. 6 oz. **1.18**

**BATTERY CHARGERS & FLASHLIGHTS**

**RCA BATTERIES TO FIT ANY APPLICATION**

Made in modern factories with high precision equipment—designed to fit every sort of application and meet the most exacting specifications, give many extra hours of service. All plug-in type except VS001 and VS016 which has snap terminals, and VS028 and VS029 which have screw terminals.

Stock No.	Type No.	Volts	Size Inches	Shpg. Sim. to Burgess	Wt. Lbs.	Your Cost
<b>Portable "A" Batteries</b>						
20N20709	VS036	1½	2½x1½	4F	¼	8¢
20N20703	VS004	1½	2½x2½x 4¼	6F	2	63¢
20N20704	VS007	1½	3¼x2½x 4¼	8FL	2	87¢
20N20705	VS008	1½	3¼x1½x10¾	G-3	3	1.19
20N20706	VS002	4½	4 x 1¾x 4¼	F4P1	1½	52¢
20N20707	VS009	6	2½x2½x 4¼	2F4L	2	66¢
20N20708	VS011	6	3¼x1½x10¾		3	1.26
<b>Portable "B" Batteries</b>						
20N20715	VS014	45	3¼x2¼x 4½	A-30	3	1.61
20N20716	VS013	45	3¼x1½x 5½	M-30	3	1.50
20N20717	VS012	45	4½x2½x 5½	B-30	3	1.50
20N20719	VS015	45	3 x 2¾x 4	Z-30	1½	1.80
20N20720	VS055	45	2½x1 x 3½	XX-30	¾	1.23
20N20718	VS016	67½	2½x3½x 1½	XX-45	1	1.71
<b>Farm "A" Batteries</b>						
20N20722	VS024	1½	7¼x27x 7½	20F	10	2.31
20N20723	VS025	3	12 x4 x 6½	20F2	15	3.42
<b>Farm "B" Batteries</b>						
20N20724	VS027	45	8½x4½x 7½	10308P1	12	2.19
20N20725	VS026	45	8½x3½x 7½	2308P1	8	1.80
20N20726	VS028	4½	2½x ¾x 2½	5360	1	1.44
20N20727	VS029	7½	4 x 7x 2¾	5540	1	76¢
<b>Farm "A-B" Battery Pack</b>						
20N20729	VS022	1½	15¾x4¼x 6½	17-GD-60	22	5.62
<b>Portable "A-B" Battery Packs</b>						
20N20730	VS019	7½-9-90	2¾x9¼x 4¾	F6A60	6	3.68
20N20731	VS047	9-90	13¾x4¼x 2¼	G6B60	8	3.74
<b>Flashlight Batteries</b>						
20N20700	VS001	1½	2¾x1½	2	2 oz.	6½¢
20N20701	VS033	1½	17x1	1	1½ oz.	6½¢
20N20702	VS034	1½	2 x 37/64	Z	½ oz.	5¢

20N20700	VS001	1½	2¾x1½	2	2 oz.	6½¢
20N20701	VS033	1½	17x1	1	1½ oz.	6½¢
20N20702	VS034	1½	2 x 37/64	Z	½ oz.	5¢



**BURGESS TW 2 LANTERN**

4. Handy, powerful light for sportsmen, farmers—throws clear beam for ¼ mile. Focusing type polished reflector with thumb switch. Uses one Burgess 4F2H, 3-volt battery. Without batteries.

20N20579—Wt. 0 lbs. **1.99**

**BURGESS PENLIGHT**

6. Sturdy, rich maroon—chrome metal case with handy pocket clip and easy-to-operate lock-on switch. Uses two Burgess No. Z penlight batteries. Compact, light weight. Without batteries.

20N20582—Wt. 8 oz. **59c**

**MICRO-LITE GLOW TIP**

5. Miniature flashlight with tip that glows all night after switch is off—without using battery. Brass case with phosphorescent plastic tip. Uses 1 penlight size battery. Key chain included.

20N20563—Each. **60c**  
12 for **6.48**

**MICRO-LITE PEN-SIZE**

7. Super-powered miniature flashlight with translucent plastic tip, chrome-plated brass barrel. Switch gives off steady or intermittent beam. Uses 2 penlight batteries. Pocket clip.

20N20564—Each. **54c**  
12 for **5.76**

**BURGESS MODERN DESIGN FLASHLIGHTS**

8. Seamless brass barrel, lock-off switch for flasher position. Long range spot beam pre-focused lamp. Less batteries.

20N20580—Uses 2 No. 2 flashlight cells. Wt. 1 lb. **1.06**

BABY TUBULAR—Smaller, no flasher switch. Less batteries.

20N20581—Uses 2 No. 1 flashlight cells. Wt. 1 lb. **91c**

**GE TUNGAR BULBS FOR CHARGERS**

Can replace Rectigon bulbs of equal rating in chargers, "A" eliminators, etc.

Cat. No.	Type	Amp.	GE No.	Each
21N21900	A	.5	289881	2.94
21N21901	B	2	12X825	2.94
21N21902	C	2	206501	2.94
21N21904	B	5	20X672	3.67
21N21903	D	6	189049	3.67
21N21911	D	15	217283	7.35

**GENERAL ELECTRIC TUNGAR-TYPE BULBS**

21N21907—Type B, 2 amperes. Wt. 2 lbs. **2.25**

21N21906—Type C, 2 amperes. Shpg. wt. 2 lbs. **2.25**

21N21908—Type D, 6 amperes rating. Shpg. wt. 2 lbs. **2.55**

21N21909—Type D, 15 amperes rating. Shpg. wt. 2 lbs. **4.50**



# DIAL CABLE, BALLASTS, LINE CORDS

## JFD AIR-COOLED ADJUSTABLE BALLAST KIT



Handy new kit of adjustable AC-DC ballasts in air-cooled perforated metal tubes, designed to replace more than 2700 different types of ballast tubes. Contains 2 Type "A," 2 Type "B," and 1 Type "C" ballasts, with book giving complete instructions and replacement data.

7N6862—Shpg. wt. 2 lbs. .... **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. .... **88c**

### J.F.D. REPLACEMENT CHART

Use Type	To Replace Types Beginning With	Numbers	Ending With
A	K,L,M or B	10 to 42	A,B,C,D,F,G or H
B	K,L,M,BK,BL or BM	45 50 105	A,B,C,D,F,G,H,S1,S2,S3
C	To replace most 4-prong types such as LX42, KX49, KX55, 140R, 165R and 185R series.		

## UNIVERSAL RESISTOR CORD

A replacement cord for all makes of receivers. One cord fits any type set. Any normally used resistance from 22 to 330 ohms in one cord. Complete instructions supplied with each cord. For servicemen, dealers.



7N5321—Resistor or Cord. Shpg. wt. 8 oz. .... **88c**

## LINE CORD RESISTORS



No.	Ohms	Voltage Drop	No.	Ohms	Voltage Drop
7N5322	135	40.5 volts	7N5325	250	75.0 volts
7N5332	150	45.0 volts	7N5329	280	84.0 volts
7N5331	160	48.0 volts	7N5242	310	93.0 volts
7N5323	180	54.0 volts	7N5326	330	99.0 volts
7N5330	200	60.0 volts	7N5241	360	108.0 volts
7N5324	220	66.0 volts	7N5320*	560	*78.75 volts

\*Asterisk denotes cord used in 3-way portable sets. Voltage drop is calculated for .15 amp. drain.

Any Above Type, Each. .... **59c**

## SPECIAL AC-DC CORDS WITH PILOT LIGHT TAP

Similar to above, but includes four conductors, with pilot light tap. 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. .... **81c**

## 220 VOLT TO 110 VOLT LINE CORD RESISTOR

American cord with standard male plug and female receptacle. European type with foreign plug and standard receptacle—ideal for servicemen abroad. Use with shavers, appliances. Standard 300 ohm for sets using 3 amp. tubes, 50 ma. plate supply.



7N5243—Total Capacity 350 ma. Shpg. wt. 8 oz. } Each. .... **1.41**  
7N5244—As above, but foreign. Shpg. wt. 8 oz. }  
Standard 560 ohms for sets using .15 amps tubes, 50 ma. plates.  
7N5245—Total Capacity 200 ma. Shpg. wt. 8 oz. } Each. .... **1.41**  
7N5233—As above, but foreign. Shpg. wt. 8 oz. }

## WALSCO DIAL CORD BACK

Contains 300 feet of dial cable—100 feet each of medium, special thin, and standard. Dust-proof dispenser on aluminum base. Has convenient measuring device.



11N9887—Shpg. wt. 3 lbs. .... **5.22**

## JFD RADIO DIAL BELT KITS

Assortments of the most popular sizes in use today.  
11N9911—Asst. of 100.....14.70    11N9910—Asst. of 25.....3.94  
For individual belts give JFD belt No. and 11N9909 @15 ea.

## BLACK NYLON DIAL CABLE—4 TYPES

Dia.	Sp. Thin	Med.	Heavy
.025"	.031"	.042"	.062"
Lgth. Sp. Thin Ea.	Stand. Ea.	Medium Ea.	Heavy Ea.
Eav.* 11N9930 .24	11N9931 .24	11N9932 .24	
25 ft. 11N9889 .73	11N9943 .73	11N9928 .73	11N9940 1.03
100 ft. 11N9927 2.65	11N9944 2.65	11N9929 2.65	11N9882 2.70
*Special Thin 10-ft.	Medium 8-ft.	Heavy 8-ft.	

## AMPERITE AC-DC BALLAST TUBES

By using these fine regulators, tubes are kept to within 5% of their correct voltage, even if the line varies from 85 to 145 volts. Furnished complete with starting resistor that saves pilot lights and tubes. All KL types are Octal base. \*Denotes exact replacement unit.



Any Type Below, Each		73c	
No.	Type	No.	Type
7N12238	4P-45	7N12225	200R*
7N12237	KL-75H	7N12232	KL-45
		7N12236	KL-50H

### REPLACES ALL AC-DC BALLASTS

Type	Beginning With	Numbers	Ending With
KL-45	K, L, M or BK	36 to 67	A, B, C or D
KL-50H	K, L, M or BK	36 to 67	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:

50A2	140R8	140L44	LX42B	KX49B	LX49C
50B2	140R44	165L4	LX42C	KX49C	LX49D
50X3T	140L4	165R8	LX42D	KX49D	KX55A
140R4	140L8	165R44		LX49B	KX55B
					LX55D

## SCOTCH TAPE DISPENSERS

1. Desk Dispenser. Takes 1/2" or 3/4" tapes.  
18N15035—Shpg. wt. 5 lbs. .... **1.39**
2. Plastic Hand Dispenser. 1/2" tape.  
18N15033—Shpg. wt. 6 oz. .... **29c**



## TRANSPARENT SCOTCH TAPE

1/2" size. 792" long. Fits both above.  
18N15046, Each 50c    6 for 2.70



## FRICTION TAPE, 3/4" WIDTH

Rolls come packed in individual boxes.

18N14829—2 Oz. each 12c  
18N14842—4 Oz. each 22c  
18N14843—8 Oz. each 39c



## BLACK SCOTCH TAPE

Ideal for insulating or binding radio parts. Has high adhesive quality. Very flexible, easy to remove. Roll is 360" long, 3/4" wide.

18N15039—Black Scotch Tape, Each. .... **25c**



## DRIVE RUBBERS

Kit of 24 contains eight different types of friction drive rubbers for replacement in popular receivers including Atwater Kent, RCA Victor and Stewart Warner.

11N9400—Drive Rubber Kit. .... **88c**



## DIAL CABLE ADJUSTER

Handy aid for replacing slipped-off dial cable over dial drum.

18N15061—Each. .... **44c**



## DIAL DRIVE SPRING ASSORTMENT

Handy kit for servicemen. Box contains 25 springs of six different sizes of hard-to-get tension springs. Offered to you now at an unusual low price!

11N9892—Shpg. wt. 1 lb. .... **65c**



## DIAL CABLE THRIFT POOL

Economical and practical assortment of dial cables. 3 section pool contains 15-ft. each of phosphor bronze cable, medium linen cord and special thin cord.

11N9879—Shpg. wt. 1 lb. .... **1.47**

## DIAL DRIVE SPRINGS

High grade steel wire rust-proof springs. Kits offer five sizes to take care of all necessary requirements.

11N9890—Kit of 10 Assorted. Shpg. wt. 2 oz. .... **24c**  
11N9891—Kit of 5 Small Sizes. Shpg. wt. 2 oz. .... **24c**



## WALSCO UNIBELT

Replacement for any dial belt. Cut to size—join ends with simple zipper-like connector. Breaking strength over 60 lbs. 5-foot spool with 10 connectors.

11N9888—Shpg. wt. 1 lb. .... **1.62**



## DETROLA DRIVE SPRINGS

Exact replacements for 1946-47 Detrola-Utah Expansion spring with inserted core.

11N9893—Shpg. wt. 2 oz. .... **24c**

## FOREIGN PLUG ADAPTER

One end of receptacle designed for standard American plug; other end has round type contacts to plug into foreign type socket. Black plastic.

33N13300—Foreign Plug Adapter. Wt. 2 oz. .... **17c**







### ICA ALIGNING KIT

14 tools conveniently designed to telescope into six easy-to-carry units in compact case. Tools include: a flexible screwdriver, alignment tool, alligator side wrench, 6" insulated driver—metal nib, 5/16" and 1/4" nut wrench, 1/4" insulated square nut wrench, 1/4" hex metal side wrench, 2 1/2" insulated driver with metal nib, 1/4" hex slotted insulated wrench driver, 5/16" hex insulated nut wrench, 5" and 6" insulated driver.

18N15088—Kit..... **4.41**

As above, less flexible screwdriver and aligning tool.

18N15089..... **2.75**



### HEX SOCKET ALIGNER

6" long with brass 1/4" socket head and screwdriver bit end.

18N15104—Shaft dia. 7/32"..... **41c**



### ICA ALIGNING TOOL SET

6" long, 3/8" dia, tool with brass wrenches for 1/4" and 5/16" hex nuts, plus 7/32" screwdriver rod.

18N15033—Set, fits together..... **73c**



### UHF ALIGNING TOOL

Amphenol Polystyrene—won't affect capacity of critical circuits.

18N15075—Tool..... **15c**



### ICA LOW "C" ALIGNER

Low capacity screwdriver for aligning superhets. 1/4" bone fibre, two nibs, one recessed, one 1/2" long.

18N15145—Low "C" Aligner..... **43c**



### ICA 5-IN-1 ALIGNER KIT

Combines 1/4" and 5/16" nut wrenches, miniature blade full-size screwdriver in fountain pen size tool.

18N15082—3-pc. Set..... **79c**



### FIBRITE SCREWDRIVER

2-ended driver for trimmer condensers.

18N15150—7/32" dia. 7" long..... **23c**

18N15151—5/16" dia. 7" long..... **41c**



### SOLID TUNING WAND

6" rod, one end brass loaded, other core steel. Insulated.

18N14976—Solid Wand..... **59c**



### V.H.F. FLEXITUNER

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

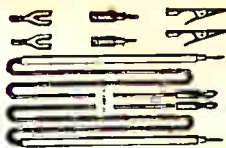
18N14977—Flexituner..... **39c**



### NEON TEST-O-LITE

Checks any voltage from 110 to 550 volts—AC or DC, spark plugs, radio sets, appliances, etc. Distinguishes AC from DC. Comes in handsome bakelite case with pocket clip.

25N12983—Test-O-Lite..... **98c**



### PENCIL PROD KIT

Spring prongs at end of prods allow changing from spade lugs to phone tips or spring clips. Handles 6" long, 1/4" diameter. 5-ft. Red and Black kinkless wire.

Kit comes complete with two alligator clips, two needle point phone tips and two tapered lugs.

25N12971—Prod Kit..... **1.47**

As above, with fixed Spring Clip Ends.

25N12882..... **73c**

As above, with Phone Tip Ends.

25N12883..... **68c**



### ICA TEST LEAD KIT

Contains pair of test leads with 60" Red and Black kinkless wire, one end with insulated phone tips, other insulated removable banana plugs. Comes in leatherette case, complete with pair of alligator clips, spade plugs, needle points.

25N12861—Each..... **2.06**

### WESTON TYPE TEST LEADS



5" long handles of red and black phenolic. With kinkless rubber wire. 65" overall length.

Comes complete with molded finger grip tips with set screws.

25N12988—Test Leads..... **1.03**



### INSULATED TEST PRODS

Type A: standard solderless phone tip with knurled collar; Type B has chuck and nut to hold plain phone needle; Type C has banana plug to fit standard banana jack. Available in Red and Black—specify color.

### SOLDERLESS PROD (A)

No.	Length	Each
25N12881	5 1/4"	24c
25N12884	6 3/4"	23c

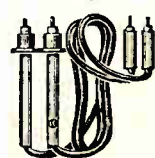
### PHONO NEEDLE TIP (B)

25N12868	4 3/4"	24c
25N12869	5 1/8"	26c

### BANANA PLUG TIP (C)

25N12912	2 1/4"	24c
25N12910	3 3/8"	26c

### 10,000 VOLT TEST LEADS



Safety tested up to 10,000 volts—a life saver for all cathode-ray tube work. Large diameter bakelite prods 6 inches long with guarded mid-gate phone-tip prods on one end and 2-inch phone tips on the other end.

Conductors are heavy-duty, heavily insulated cables, 18 gauge stranded tinned copper for low voltage drop. Cables are 50 inches in length. One lead is Red, the other is Black. Also essential for X-ray repair jobs and transmitter work.

25N12885—Test Leads..... **2.35**



### 4-IN-1 NEUTRALIZING TOOL

1/4" nut wrench with key slot and aligning screwdriver. Sturdily made of molded bakelite. Includes pen clip for attaching to pocket.

18N14915—4-in-1 Tool..... **50c**

### ALLIGATOR CLIP TEST LEADS



High grade alligator clips. Complete with 6" Red and Black handles, removable phono needle chuck.

25N12980..... **88c**

### ICA "NO BREAK" PRODS



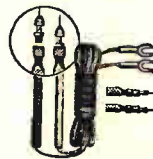
Top grade insulated prods of solid brass, nicked and covered with shockless live rubber—one Red, one Black. Tips are sharp pointed type. Other end of 50" kinkless rubber wires have solderless insulated phone tips.

25N12999—Pair..... **68c**

As above, but with standard phone tips.

25N13000—Pair..... **59c**

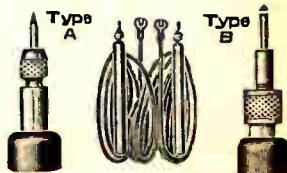
### ICA LABORATORY PRODS



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 heavy duty kinkless and extra-flexible rubber wire. Choice of spade or phone tips.

25N12978—Spade Tips..... } Each

25N12979—Phone Tips..... } **82c**



### NEEDLE AND SOLDERLESS TIP PRODS

Red and Black colored kinkless 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	Pair
25N12976	—Phone Tips	} <b>53c</b>
25N12975	—Spade Lugs	
25N12977	—Alligator	

### SOLDERLESS TIP PLUGS (B)

25N12968	—Phone Tips	} <b>53c</b>
25N12969	—Spade Lugs	
25N12970	—Alligator	



### NEON TESTER

1. New neon electrical tester indicates voltage from 60 to 500 volts, operating on both AC and DC current. Especially useful in tracing shorts, open or grounded circuits.

25N12958..... **29c**



### NEON CIRCUIT TESTER

2. Shows open circuits, polarity, continuity, etc. Checks fuses in circuits. Tiny neon lamp glows on 1 ma. Coded leads have phone tips. AC-DC.

25N11310—90-550 V. Tester..... **59c**

Low voltage, alligator clip leads.

25N1308—5-50 V. Tester..... **1.10**



### NEUTRALIZING "DRIVER"

Especially made for aligning coils, condensers, etc. Size: 6 1/4 x 1/4".

18N15080—Driver..... **24c**



# DEPENDABLE TUBE AND SET TESTERS

## RCP MODEL 802N TUBE AND SET TESTER



Compact service shop ready to take out on the job. Tests all receiving type tubes. Jack for noise test.  $4\frac{1}{2}$ " meter with large "Good-Bad-Doubtful" section for tube testing. Easily read figures for set testing, battery test. Tests paper, mica and electrolytic condensers for leakage. Ranges: 0-10/50/500/1000 volts DC or AC at 1000 ohms per volt. DC milliammeter 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 V 60 cyc. AC.  $13\frac{1}{2} \times 9\frac{1}{2} \times 5$ ".  
25N21587—Shipping weight 15 lbs..... **58.31**

## RCP "DYNOPTIMUM" TUBE TESTER



Model 322. Easy to operate. Exclusive "Dynoptimum" circuit requires only 5 controls for complete tube check. Permits accurate checking of wide variety of old or new tubes, including the new miniature and sub-miniature receiving types. Provisions for checking individual sections of multipurpose 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 322 is housed in handsomely styled black crackle open face steel cabinet with sloping panel. Size:  $5\frac{1}{4} \times 12\frac{1}{4} \times 7$ ".

25N21599—Shipping weight 11 lbs..... **37.19**

Model 322P. Same electrical characteristics as above, but housed in steel carrying case with detachable cover.

25N21600—Shipping weight 13 lbs..... **41.11**

## ROLINDEX TUBE CHART



Model 103. Tube testing data at a glance. Fits snugly in the tool compartments of the RCP Models 322, 322P and 802N. Housed in sturdy all-steel case. Finished in attractive black crackle. Size:  $3 \times 8 \times 2\frac{3}{4}$ ".

25N21588—  
Shipping weight 4 lbs..... **7.35**

## STAR TUBE CHECKER



Model TE-1, compact, precision-built tube tester. Light weight for portable or workbench use. Separate switching for each pin of each socket so any heater or plate voltage can be applied. Checks 570 different tubes including new novol. Crackle finish metal case.  $9\frac{1}{2} \times 3\frac{1}{2}$ ".

25N21554—Shpg. wt. 6 lbs... **29.95**

## RCA RIDER CHANALYST



Permits systematic analysis of any radio receiver. Any point tested without interrupting operation. Checks presence or absence of signal, operating and control voltages. Operation of various types of filter circuits checked at radio, intermediate and audio frequencies. Locates failures in minutes instead

of hours. Solves the problem of intermittents quickly. Locates origin of hum. Identifies oscillating AF stages and finds source of noise. With test leads, prods, complement of 12 tubes and operating instructions. Gray crackle finish steel case with carrying handles. Size: 9" high, 16" wide,  $10\frac{3}{4}$ " deep.

25N21666—Shipping weight 28 lbs..... **162.50**

## TRIPLETT MODEL 3413 TUBE TESTER



Multipurpose test circuit provides emission test, short and open element test and transconductance comparison test for matching tubes. Tests all receiving tubes, gaseous rectifiers, ballasts and pilot lamps. Neon short indicator. Meter indicates whether tubes are Good, Bad or Doubtful. Built-in roll chart. For 110 volts, 60 cycle AC operation. 10" wide, 10" deep,  $5\frac{1}{2}$ " high.

25N21603—Shpg. wt. 12 lbs..... **65.41**

## RCP MODEL 8073 SERVISHOP



In one compact unit—Tube tester, Multi-Tester, FM and AM Signal Generator, Audio Oscillator, and Condenser Tester. Checks 800 different receiving tubes including miniature types. Condenser tester reads "Good or Bad" for leakage of electrolytics, paper and mica condensers. Four pre-set frequencies for aligning FM receivers, and four for aligning AM receivers.

Audio oscillator has 400 cycle output. Multi-tester ranges: DC and AC volts 0-10/50/500/1000; 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.  $5\frac{1}{2} \times 9\frac{1}{2}$ ". For 105-135 volt 50-60 cycle AC.

25N21725—Shipping weight 17 pounds..... **83.25**

## HICKOK TUBE AND SET TESTER



Model 534A mutual conductance tester—checks all receiving-type tubes under operating conditions. Special switch enables checking useful tube life. Roll chart. Multi-tester ranges: AC-DC V 0-20/200/500/1000/5000, DC 20,000 ohms/volts, AC 1000 ohms/volt; ohms 0.1 ohms to 100 meg in 3 ranges; DC MA 0-5/20/200; Capacitance .0001-150 mfd. Checks leakage on electrolytics and paper condensers. Checks inductance to 100 henries. DB from -10 to +50 db. 110 V 60 cycles.

25N21452— $17\frac{1}{2} \times 18\frac{1}{2} \times 4\frac{1}{4}$ ". Shipping weight 35 pounds.... **149.00**

Model 533—as above, less set testing features.

25N21457—Tube Tester. Shipping weight 34 pounds... **128.00**

Model 536. Portable Tube and Set Tester. All the features of Model 534A plus additional accuracy, dependability of particular interest to the exacting technician and laboratory engineer. Separate line voltage meter.

25N21458—Portable Tester. Shipping weight 38 pounds **215.76**

## HICKOK INDICATING TRACEOMETER



Model 156, newly designed Traceometer provides the serviceman with a rapid means of locating troubles in either dead or intermittent receivers. Unit permits the operator to rapidly trace signal through receivers from antenna to speaker. Operation of RF, mixer, local oscillator, IF, detector, discriminator, limiter, AF and power supply can be checked simultaneously without changing a test lead.

Separate meters for each of five channels. Built-in speaker for monitoring of intermediate, radio and audio frequency channels. Vacuum tube voltmeters are amply protected to prevent damage by overloads. Wattmeter permits measurements of power consumption from 0 through 150 watt, without test leads. For operation on 105-125 volts 50-60 cycle AC. Overall dimensions: 14 inches wide, 11 inches deep,  $16\frac{1}{2}$  inches high.

25N21590—Shipping weight 32 lbs..... **195.00**

## 5-CHANNEL MEISSNER ANALYST



Complete servicing instrument, locates faults by signal tracing method. 5 separate channels, all may be operated at the same time. 4 range electronic voltmeter, wide range audio test channel, oscillator trouble-shooter channel. 95-1700 KC RF-IF test channel and line current indicator channel. Controls accurately calibrated. Aligned and laboratory tested. With 12 tubes, test cables, prods and instruction book. For 110 V 60 cyc. AC. Size:  $9\frac{1}{2} \times 13\frac{1}{2} \times 10\frac{1}{2}$ ".

25N21706—Shpg. wt. 35 lbs.... **111.57**

ANALYST MANUAL Schematic circuit and data on analyst.

25N19994..... **25c**

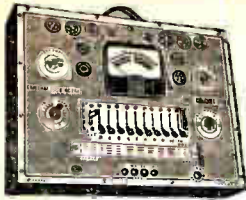
## TRIPLETT COMBINATION TESTER

Model 3480, provides a complete test laboratory for tube testing and circuit analysis. Combines the popular Model 3413 Tube Tester with roll chart and a Volt-Ohm-Mil-Ammeter. Ranges: AC-DC Volts 0-3/12/60/300/1200, DC at 10,000 ohms/volt, AC at 2,000 ohms/volt; DC amps 0-12; DC MA 0-1.2/12/120; Ohms 0-1000/10,000; Megohms 0-1/50. Tam finish case.  $15\frac{1}{2} \times 32 \times 11\frac{1}{2} \times 6\frac{1}{8}$ ".

25N21490—Shipping weight 28 lbs..... **96.77**



## GENERAL ELECTRIC TUBE CHECKER

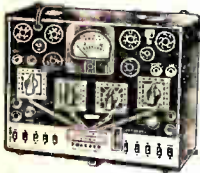


Model YTW-1. Designed to speed up the test of a tube, saving the serviceman many hours a day spent at the tube tester. Exposes immediately a tube with an open element without the usual warmup period. Tests all the latest tubes including miniatures, 9 pin novals and pilot lights. Test circuits are protected by fuse on front panel.

High speed built-in roll chart indicates automatically correct position of each switch, alternate white and blue lines makes chart easy to follow. Easy-to-read  $4\frac{1}{2}$ " meter shows Good, Doubtful, Replace. Unit incorporates 1000 ohms/volt voltmeter for battery testing and DC voltage measurements to 1000 V. Gray wrinkle finish case. For 105-125 V. 50-60 cyc.  $17\frac{1}{2}$ " x  $12\frac{1}{2}$ ".

25N21581—Shpg. wt. 18 lbs. **49.50**

## SUPREME TUBE AND SET TESTER



Model 589-A. Easy-to-read full view scale, portable case. Universal floating filament circuit provides for testing old, new and future tubes. Neon lamp checks open circuits and leakage between elements. Built-in roll chart carries full tube setting data. New tube setting data supplied for one year at no extra charge. Tube tester has 18 filament voltages from  $\frac{3}{4}$  to full line voltage. Correct plate

loads for all tubes. Jacks provided for use of headphones for checking noisy, loose and bad connections. Checks A and B batteries under normal load. 1.5, 4.5, 6.0, 45, and 90 volts portable batteries tested on "Replace-Good" scale. New type luggage carrying case, plastic hardware and leather carrying handle. Gray wrinkle panel. For 110-133 volts, 50-60 cycles. Overall size:  $11\frac{1}{2}$ " x  $8\frac{7}{8}$ " x  $5\frac{3}{4}$ ".

25N21753—Shpg. wt. 10 lbs. **53.75**

## JACKSON DYNAMIC TUBE TESTER

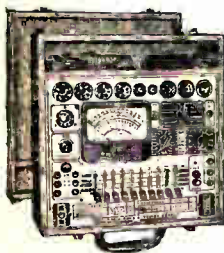


Model 648-P. New design provides complete dynamic testing of all radio tubes used today. Dynamic test applies separate element voltages and loads, selected to simulate actual operating conditions. Simplified operation, only three controls. Heater voltage, Plate and Sequence controls to be set from tube chart. Only other controls are the line adjustment and the Short test. Tests each element for Shorts or high resistance leakage.

Heater voltage control shows actual voltage applied. Large, easy-to-read 4-inch meter has GOOD-BAD scale. Built-in roll chart triple indexed for rapid location of settings. Free supplement service for one year. Sturdily constructed portable case. For 100 to 125 volts, 50 to 60 cycles.

25N21608—Shipping weight 14 lbs. **87.71**

## PRECISION TUBE AND SET TESTERS



Model 620-P. Newly designed to provide general purpose test of tubes and circuits of radio receivers. 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 A, B, and C batteries under load. Circuit tester ranges: 5 AC, DC and Output ranges: 0-12/60/300/1200/3000 volts at 1000 ohms/volt; DC current 0-1.2/12/120 MA, 0-1.2/12 amps; ohms 0-1000/100M/10 megs.; Decibels -12 to +64 db. Comes in

hardwood portable carrying case. Size:  $12$ " x  $13$ " x  $6$ ".

25N21662—Shpg. wt. 21 lbs. **92.22**

Model 654-P. Same as Model 620-P except following ranges: DC V. 0-12/60/300/1200/6000, 20M ohms/volt; AC V. same as DC at 1000 ohms/volt; Output Volts same as AC V; DC current 0-120 microamps, 0-1.2/12/120 MA, 0-1.2/12 amps; Ohms 0-6,000/600M/60 meq.; Decibels -20 to 70 db.  $12$ " x  $13$ " x  $6$ ".

25N21664—Shpg. wt. 19 lbs. **104.27**

Model 612-P. Tube and Battery Tester. Features same as model 620-P, but less set testing features.

25N21663—Shpg. wt. 17 lbs. **68.11**

## TUBE, BATTERY, AND SET TESTERS

### SIMPSON TUBE TESTER



Model 330. Designed to test tubes in terms of percentage of rated dynamic mutual conductance. Large easy-to-read  $4\frac{1}{2}$ -inch meter with colored dial indicates Good, Fair and Doubtful. Complete tube chart listing all radio receiving tube types in use today, for quickly identifying tubes and setting controls.

Sockets provided for all types of tubes. Ten push-button and nine rotating switches provide infinite combinations in tube element and circuit selections. Reset button returns all controls to normal position after use.  $15\frac{1}{2}$ " x  $9\frac{1}{2}$ " x  $6\frac{1}{4}$ ".

25N21714—Shpg. wt. 16 lbs. **116.13**

Model 330RCP. Electrical characteristics same as above, but with convenient easy-to-read built-in roll chart.

25N21719—Shpg. wt. 18 lbs. **129.85**

### SIMPSON MODEL 555 TUBE TESTER



Newly designed and engineered the Model 555 offers simplicity of operation and attractive appearance. Use of new Simpson three position lever operated toggle switches makes it possible to test any tube regardless of its base connections or internal connection of its elements. Silver plated switch contacts are self-cleaning.

Tests all receiving tubes including new 9 pin miniatures and subminiatures used in hearing aids. Extra sockets and flexible individual element switching takes care of future tube developments. Tests gaseous rectifiers, pilot lamps and continuity of ballast tubes. Built-in Simpson "No-Backlash" roll chart with complete tube testing data. Sturdily constructed black leatherette covered portable case, with silver and black panel. Overall size:  $16\frac{1}{4}$ " x  $12\frac{1}{2}$ " x  $6$ ".

25N21739—Shpg. wt. 20 lbs. **68.45**

### 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.  $4\frac{1}{2}$ " meter. Checks tubes for gas content, shorted and open elements. Sufficient plate current to check both emission and mutual conductance. Flexible switching permits all testing tubes regardless of location of the elements on the tube base.

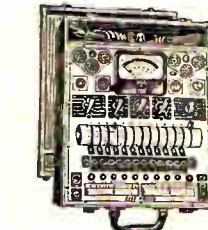
Checks ballasts and voltage regulators. Built-in roll chart. Fused on front panel. Portable carrying case,  $12\frac{1}{2}$ " x  $18$ " x  $5\frac{1}{2}$ ".

25N21616—Shpg. wt. 20 lbs. **61.59**

Model R200 BC. Same as above, but housed in attractively styled sloping counter cabinet.  $14$ " x  $11\frac{1}{2}$ " x  $5$ ".

25N21615—Shpg. wt. 17 lbs. **57.67**

### PRECISION TUBE AND SET TESTER



Model 10-20-P. Mutual conductance tube tester with new "Electronic" feature, plus multi-range Volt-Ohm-Milliammeter and Battery Tester. The Electronic feature checks tubes over complete path of operation. Tests all modern tube types. Free point lever element selection and inter-element short checks. Tests radio A, B, and C batteries under load. Built-in roll chart. Push-button operated circuit tester. Ranges: 6 AC-DC and output ranges. 0-6/12/60/300/1200/3000 at 1000 ohms/volt; DC Current 0-600 microamps, 0-6/60/300/1200 MA, and 0-12 amps; Ohms 0-1000/100,000 ohms and 0-1/10 megohms; Decibel -20 to +64 db. With batteries and test leads.  $13\frac{3}{4}$ " x  $17\frac{1}{4}$ " x  $6\frac{3}{4}$ ".

25N21659—Shpg. wt. 23 lbs. **117.40**

Model 10-54-P. Same as above except DC voltage ranges are 20,000 ohms/volt; Current ranges 0-60/120 microamps, 0-1.2/12/120/1200 MA, and 0-12 amps; Resistance ranges 0-6000/600,000 ohms and 0-6/60 megohms; 6 Decibel ranges -20 to +70 db.

25N21605—Shpg. wt. 23 lbs. **131.71**

Model 10-12-P. Tube and Battery Tester. Has same features as Model 10-20-P, but less set testing features.

25N21658—Shpg. wt. 21 lbs. **94.18**



# SIGNAL GENERATORS FOR FM, AM, TV

## ECA FM-TV SWEEP GENERATOR

Newly designed ECA model embodies the latest in engineering design, precision accuracy and simplicity of operation. Complete frequency coverage of 2 to 227 MC on 3 bands, covers entire FM and television bands. Sweep width 500 KC to approx. 10 MC. Dial calibrated directly in frequency, no mental calculations are necessary. Maximum output 500,000 microvolts. Built-in power line filter. Generator output can be used either Frequency Modulated or pure RF. Tubes used are: 4—6C4 and 7Y4. Housed in steel cabinet finished in Gray wrinkle enamel. For operation on 105-125 volts 50-60 cycle AC.

25N21736—Shpg. wt. 16 lbs. .... **34.95**

## ECA AM SIGNAL GENERATOR

Extremely stable companion unit to ECA FM signal generator covers long wave, broadcast and short wave. RF from 100 KC to 25 MC in six bands of harmonics. Internal modulation of 400 c.p.s. variable from 0 to 100%. RF and AF oscillators of new highly stable design. For 110 volt, 60 cycle, AC only. All-steel welded cabinet finished in Gray wrinkle enamel. Dimensions: 8"x10"x12". With output cables and tubes.

25N21738—Shpg. wt. 19 lbs. **32.50**



## SILVER FM/AM

Model 906—Eight fundamental ranges, directly calibrated to 1%. 90 KC through 170 MC. RC audio oscillator provides 400 cycle AM modulation, 0 to 100%. FM 90 KC through 210 MC with built-in electronic FM sweep variable from 0 to 500 KC. Output variable from 1 microvolt to 1 volt. Metered output, dual variable and 4 position ladder attenuators, multiple turret. 10:1 vernier dial. Service AM and FM sets by aural, meter or visual alignment methods. For 105-125 volt, 50-60cyc. 12 3/4"x7 3/8"x5 3/8".

25N21542—Wt. 14 lbs. **116.50**



## RCP MODEL 705

Wide range from 95 KC to 100 MC. Fundamental frequencies in five bands continuously variable from 95 KC to 25 MC. Self-contained 400 cycle sine wave generator modulates carrier at 30% or 80%. Five step ladder attenuator. Frequency calibration accurate to 2% up to broadcast band and 3% to high frequency bands. Individually shielded RF circuits, coil assemblies and attenuator. High ratio planetary drive tuning condenser, 110-130 volt, 50-60 cycle. In handsome Black crackle finished steel housing. 8"x11 1/4"x5".

25N21720—Wt. 13 lbs. **48.51**

## SIMPSON MODEL 340

Big nine-inch meter type dial, with knife edge pointer. Smooth vernier control permits close settings. Electron coupled circuit. Standard 30% modulation at 400 cycles. Ladder type step attenuator. Volume level of each step regulated by a smooth non-inductive control. Special jack for high output. RF coils provide ranges of 75-220; 200-600; 550-1700 KC; 1.5-4.5, 4.2-14; 9-30; 36-120 megacycles. Fundamentals to 30 MC. Direct reading dial to 120 MC. Each coil individually calibrated to close tolerances against crystal standards. Steel case finished in Gray wrinkle enamel. For 105-130 volts, 50-60 cycle. Overall dimensions: 16"x10"x6". Complete with leads.

25N21552—Wt. 20 lbs. .... **68.45**

Model 415 FM-AM Signal Generator.

25N21716—Wt. 24 lbs. .... **112.70**

Model 415A FM-AM Signal Generator with built-in Sweep Circuit.

25N21726—Wt. 24 lbs. .... **142.10**

Write for descriptive literature.



## PRECISION MODEL E200C



Units are individually hand calibrated to better than 1% on all bands which range from 88 KC. to 120 MC. Fundamentals to 30 MC. Direct reading; no charts needed. Large full vision 6 1/2" no-glare dial with a 0-1000 point vernier scale allowing direct reading to one part in 1000. 400 cycle sine-wave audio oscillator provides modulation and external test signal from zero to 50 volts. Complete shielding including electrostatically shielded transformer. AC line is RF filtered. 0-100% modulation control more than triples signal utility. For operation on 110 volts, 50-60 cycles. Overall dimensions: 10 1/2"x12"x6".

25N21715—Shpg. wt. 20 lbs. .... **65.90**

## HICKOK SIGNAL GENERATOR

Model 191X. Crystal controlled. Accurate, dependable microvolt source of RF test voltages from 125 KC to 120 MC on fundamentals. 8" dia. dial. VTVM for direct calibration of RF output from 1/4 microvolt to 100,000 microvolts. Modulation 30% at 400 cycles fixed, and 0.70% at 400 cycles, and variable. External modulation from 5 to 10,000 cycles. Decibel meter. 105-125 volts, 50-70 cycles. Blue baked lacquer finished case. Overall size 14"x16 1/2"x8".

25N21450—Shpg. wt. 31 lbs. **160.00**



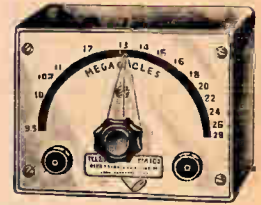
## RCP SIGNAL GENERATORS

Model 720 for FM—accurate within 1%! Easily carried in coat pocket. Four fixed frequencies of 10.7, 88, 98, and 108 MC, for aligning IF's and low, mid and hi points of band. Continuously variable attenuator. With shielded test leads. 105-125 V, 60 cycle AC-DC. 3"x6"x2 3/4".

25N21604—Wt. 2 lbs. **19.55**

Model 710. For AM. Has fixed frequencies of 550 and 1500 KC for broadcast alignment. 456 and 465 KC for IF alignment. Dimensions: 3x6x2 3/4".

25N21596—Wt. 2 lbs. **17.59**



## ABSORPTION TELE-MARKER

Vision Research Model TM-100 marker unit requires no external power. Covers all FM and TV IF frequencies from 9.5 to 28 MC. Hand calibrated dial assures greater accuracy. Checks exact frequency at which FM and TV IF amplifiers are peaked, determines band width and trap alignment, allows instant and positive peaking of all IF coils through associated use of sweep generator and oscilloscope. Special 10.7 MC calibration point for aligning FM receivers. 5"x3"x4". With co-axial cables, connectors.

25N21740—Wt. 3 lbs. **12.25**

## HICKOK MODEL 288X

Model 288X. Fundamentals throughout entire range of 100 KC to 110 MC on AM and 100 KC to 160 MC on FM. Variable audio output 0 to 15 KC. Decibel meter. 110 KC and 1000 KC crystal controlled signal, accurate to 0.01% unmodulated or modulated at 400 cycles. Signals to 125 MC in multiples of 100 KC and 1000 KC. 110 volts, 50-60 cycles. Overall dimensions: 14"x15 1/2"x8".

25N21455—Wt. 30 lbs. .... **169.20**

## HICKOK TV GENERATOR

Model 610. Frequency range of 10 to 250 MC enables you to visually align any television receiver to all TV channels. Dial directly calibrated—can be read to .5% accuracy. Sweep width variable from 0-15 MC. Self-contained markers directly readable to .05 MC. Marker frequency range of 20-30 MC is internal, modulated or unmodulated—oscillator or absorption wave meter. 400 cycle 50% modulation. Zero to .2 volts output. 105-125 volts, 50-60 cycles. Dimensions: 14"x16"x8".

25N21456—Wt. 27 lbs. .... **169.20**





**FERRET SIGNAL GENERATOR**

Model 701. FM-AM signal generator. Large 9" three color scale, glass covered. Frequency range 170 kc to 220 mc, fundamental frequency to 110 mc. Unit completely shielded for minimum radiation. Crystal calibrated, low loss, permeability tuned RF coils. 0 to 100% internal 400 cycle sine wave modulation. Low loss, low impedance, coaxial cable output. Ladder attenuator. Blue-Gray Hammertone-finished aluminum case. Overall dimensions: 10 1/4"x10 1/4"x5 1/2". For operation on 110 V. 60 cycle AC only. 25N21432—Shipping weight 10 lbs. .... **74.95**



**TRIPLETT FM-AM SIGNAL GENERATOR**

Model 3432. FM-AM generator. Range 165 KC-120 MC. To 40 MC on fundamentals. Variable 0-100% internal 400-cycle modulation. 10:1 vernier drive dial with knife edge pointer. RF and audio circuits are double shielded. All steel, rounded-corner cabinet in Hammered enamel finish. 15-11/32"x 11-1/32"x6 1/4". For 110 V. 60 cycle AC. With cable and tubes. 25N21489—17 lbs. **68.11**



**G-E SIGNAL GENERATOR — YGS-3**

Four units, may be used independently or in combination. Includes RF oscillator 100 KC to 150 MC; FM oscillator of 1, 20, and 50 MC and 1 MC crystal calibrator; 100 to 12,000 cycle audio oscillator. Internal mixer for any desired FM frequency. Internal or external modulation, dual electron-ray indicator. RF attenuator for control of output level. Separate audio and RF output cables. 17-1/16"x9 3/4"x9-11/16". For 105-125 V. 50/60 cyc. 25N21562—Shpg. wt. 35 lbs. **139.50**



**VISION MODEL TSW-50 TELE-SWEEP**



Especially designed for use with a cathode ray oscilloscope to visually align FM and Television receivers. Frequency ranges: 5-30 MC, 20-60 MC, 60-100 MC, 170-215 MC (covers FM and Television). Sweep frequency is 60 cycles. Sweep frequency width is variable from 500 KC to 10 MC. Maximum output is 1 volt at 100 or 10 ohms impedance. Overall size: 12"x8"x8". For operation on 110 volt AC. With tubes, probe, and coaxial output cable. 25N21737—Shipping weight 16 lbs. .... **67.13**

at 100 or 10 ohms impedance. Overall size: 12"x8"x8". For operation on 110 volt AC. With tubes, probe, and coaxial output cable. 25N21737—Shipping weight 16 lbs. .... **67.13**



**RCA AUDIO OSCILLATOR**

Model WA54-A. Temperature-compensated circuit incorporates two r-f oscillators—outputs combined in a heterodyne detector to produce 20-17,000 cycles. 250, 500, and 5000 ohms output impedance at 125 MW. Can be calibrated at line frequency using the electronic eye to indicate zero beat. Distortion under 5% rms over entire range. Hum level 60 db below max. output. 105/125 volts, 50/60 cycles. Blue-Gray case. Size: 9 1/2"x 13 1/2"x7 1/2". 25N21670—25 lbs. **152.50**

**RCA TEST OSCILLATOR**

WR-67A. Electron-coupled r-f oscillator for servicing radio receivers. Maintains output of 1 volt from 100 KC to 30 MC. Four attenuator levels plus fine adjustment for continuous control of r-f output from 4 microvolts to 1 volt. Audio oscillator for internal 75% modulation at 400 cycles. Reduced r-f leakage permits testing of high-sensitivity receivers. Compensated oscillator circuit minimizes R.F. distortion. 13 1/2"x9 3/4"x7 1/2". 105-125 V., 50/60 cycles. 25N21668—Wt. 20 lbs. **89.50**

**RCA TV SWEEP GENERATOR**

WR-59A. Reliable FM sweep-signal generator for visual TV and FM alignment. Ranges: Video 0-10 MC; Picture IF, 1st band 5-15 MC; Picture IF, 2nd band 20-30 MC; Picture IF, spare 25-40 MC; FM IF 10-11.5 MC; TV Sound IF 20.25-22.25 MC; Television Channels 1-13. Output Voltage RMS, all frequency ranges 0.1 volt. Output Impedance: RF 300 ohms; IF and Video 100 ohms. Phase Control 0°-160°. 105/125 V., 50/60 cyc. 10"x13 1/2"x7 1/2". 25N21669—25 lbs. **325.00**

**McMURDO AUDIO OSCIL.**

Model 913. Covers 20 to 25,000 cps, in three bands of 20/250, 200/2500, and 2000/25,000. RC oscillator for excellent frequency stability. Sine wave or square wave output available at a flip of switch. Output 1 watt max., variable to zero, enough for direct speaker testing. Output Impedances, Ungrounded, are 6, 125, 500 and 5,000 ohms. 5" dia. dial calibrated directly in frequency. 1% Harmonic Distortion. 110 V. AC. 12 3/8"x7 3/8"x5 3/8". 25N21547—Wt. 15 lbs. **68.50**

**JACKSON AUDIO OSCILLATOR**

Model 655. Provides both AF and Supersonic frequencies. 20-200,000 cps in 4 ranges, accurate to 3%. Permanently locked calibration. Fundamentals only. Transformer or resistive outputs, impedances 10/250/500/5000 ohms or "High." Variable output. Power output with transformer coupling 1/2 watt from 20 to 20,000 cps. Flat response 1 db from 30 to 15,000 cps with transformer coupling. 110 V. AC operation. Dimensions: 3" x 9 1/2" x 9 1/2". 25N21602—Wt. 30 lbs. .... **132.30**



**FERRET AUDIO OSCILLATOR**

Model 710. Uses four miniature tubes for a range of 20 to 24,000 cycles. R/C type oscillator with sine or square wave on same calibrations. Accuracy of 2% on all bands. 25 volts sine or square wave output. Low loss, low impedance coaxial cable output. Three colored dial is glass enclosed for protection against damage and dirt. House in Blue-Gray Hammertone finish case. 110-220 volts, 50-60 cycles AC only. Dimensions: 10 1/4"x10 1/4"x5 1/2". 25N21431—Shpg. wt. 10 lbs. **89.95**



**JACKSON UNIVERSAL GENERATOR**

Model 641. Newly designed for servicing AM, FM and TV receivers. Frequency range: AM from 100 KC to 120 MC; FM from 100 KC to 160 MC. Amplitude modulation continuously variable from 0-80%. FM sweep ranges: on NBFM adjustable from 0-40 KC and wide band from 0-800 KC. Modulation frequency 100 to 10,000 cycles adjustable, and is available for external audio tests. Output impedance of 30 ohms constant for all ranges. Built-in RF voltmeter for monitoring output signal. With tubes and coaxial output cable. 16 3/4"x9 1/2"x7". 25N21607—Shpg. wt. 30 lbs. **172.01**



**SILVER FM/TV GENERATOR**

Model 911. Frequency ranges same as Model 909A at left, with additional features: Marker oscillators: Ultra-stable individually adjusted 1 and 5 MC crystal oscillators, separately panel-variable. Harmonics useful in visual alignment to 100 MC.; Synchronization, both 60 and 120 cycles saw-tooth voltage provided for oscilloscope horizontal sweep, with panel phasing control to permit adjustment for single-trace TV video curves. With co-axial Hor. Sync. and Output cables, ground-clip-lead and tubes. 25N21546—Shpg. wt. 14 lbs. **78.50**





# ACCURATE V.T.V.M. MULTITESTERS

## VACUUM TUBE VOLT-OHM-CAPACITY METER



**Electronics Measurements Model 300.** New Electronic input with resistance of 1 to 30 meg-ohms/volt on DC, 1000 ohms/volt on AC with full wave tube rectification. Ranges: DC volts 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 mfd. to 20 mfd. Zero center position for aligning FM discriminators. Open-face meter — comes complete with test leads and ohmmeter battery. Overall Dimensions: 9" x 6" x 4".

- 25N21679—Shpg. wt. 5½ lbs. **38.71**  
 Model 300-P. In portable case with cover, test leads.  
 25N21680—Shpg. wt. 6½ lbs. **43.61**  
 High Frequency Probe. Enables measurements up to 100 MC.  
 25N21681—Shpg. wt. 3 lbs. **6.37**

## 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 (including polarity reversal) 0-3/12/30/120/300/1200 at 51 megohms input resistance, 0-7.5/30/75/300/1200/3000 at 126 megohms. 6 AC, AF, IF, RF ranges 20 cycles thru 100 MC; 0-3/12/30/120/300/1200 at input resistance of 20 meg/7 mmfd.

6 resistance ranges of 0-2K/20K/200K/2 meg/2000 meg. using internal battery, 3 DB ranges -10 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 6AR5 and 6X4 rectifier. Shielded probe. 105-125 V., 50-60 cycles AC. 12½ x 7½ x 5½".

- 25N21544—Shpg. wt. 14 lbs. **68.50**



## RCA VOLT OHMYST MODEL 195-A

1. Constant 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 AC volts on linear scale; 0-1000/10,000/100,000 ohms/1 meg./10 megs./100 megs. by using internal source of 3 volts. Frequency response of 30 cyc. to 100 KC. Input impd. 200M ohms plus 170 mmfd. 0-5/10/50/100 volts. -20 to 62 db. (1MW across 600 ohm line) FM alignment indicator. New style easily read meter in Gray steel case. With ohmmeter battery and test leads. Overall Size: 9½ x 6¾ x 6¾".

- 25N21771—Shpg. wt. 14 lbs. **79.50**

WV-65A. Same except battery operated. AC voltmeter is 1000 ohms/volt, reads DC ma to 300 ma in 5 ranges, 0-10 amperes DC. With batteries and leads.

- 25N21776—Shpg. wt. 12 lbs. **87.50**

2. RCA crystal probe for converting DC circuit of any VoltOhmyst to read AC so RF voltages up to 100 MC are indicated directly on DC scale.

- 25N21775—Shpg. wt. 2 lbs. **8.95**

## FERRET VTVM AND SIGNAL TRACER

5. Model 730. Audio and RF measurements to 300 MC on illuminated 8" meter. Four stage high-gain signal tracer uses ½" streamlined diode probe with built-in speaker for audible tracing of all signals from audio to 300 MC. 10 megohm input on AC and DC voltage ranges of 0-1/3/30/100/300/1000/3000. Resistance ranges 1000 meg. center scale at: 10/100/1000/10,000/100,000/1 meg./10 meg. Accuracy within 3% to 250 MC, 5% to 300 MC. ½% resistors used throughout. Uses miniature tubes: 6AQ5, 6AQ6, 6AL5, 6K4, two 12AU7, 6X4 rectifier. Aluminum case in Blue-Gray Hammertone, leather handle. 10¼" x 10¼" x 5½". For 110-120 volts, 50-60 cycles AC. Comes complete with ohmmeter batteries, test leads and probe.

- 25N21433—Shpg. wt. 15 lbs. **99.95**

## 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 3% ±. AC ranges 0-10/30/100/300/1000 volts. 1000 ohm/volt sensitivity with accuracy of 5% ±. Electronic ohmmeter ranges: 0-1000/10,000/100,000 ohms; 1/10/1000 megohms. Complete with signal tracer probe, test leads, batteries. Case Size: 9½ x 6 x 4¾". 110-120 V. 50-60 cyc. AC.

- 25N21710—Shpg. wt. 11 lbs. **52.50**

**Ediprobe.** Use with any VTVM. Permits use of high resistance DC scale to measure RF voltages with response of 60 cycles through 100 MC with no loading of circuit.

- 25N21703—Shpg. wt. 2 lbs. **7.00**

## TRIPLETT ELECTRONIC VOLT-OHM-MILLIAMETER

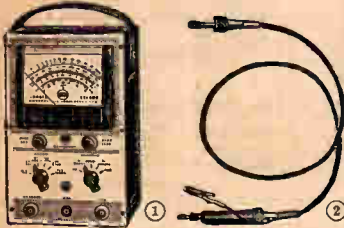


**Model 2451.** AC, DC and RF voltages read on same scale of 6" 200 Micro-ampere Red Dot meter. 11 megohm input. Ranges: DC, AC, AF volts, 0-2.5/10/50/250/500/1000; RF volts 0-2.5/10/50; DC milliamperes 0-2.5/10/50/250/500/1000; Resistance 0-1K/10K/100K and 0-1 meg/10 meg/100 meg. Crystal diode probe for accurate RF measurements up to 100 MC. Zero center voltage scale for FM discriminator alignment. Precision 1% resistors throughout. Accommodates RF diode probe for VHF to 400 MC. Tan enameled metal case. 10"x10"x5". For 115 V. 50-60 cyc. AC.

- 25N21491—Shpg. wt. 16 lbs. **74.97**

Voltage Multiplier Probe for extending range to 10,000 volts.

- 25N21492—Shpg. wt. 3 lbs. **14.21**



## PRECISION VT MULTI-TESTER

3. Model EV-10MCP. Voltage regulated power supply and 8½" meter. Ranges: eight zero center vacuum-tube voltmeter ranges 0-3/6/12/60/300/600/1200/6000 volts at 13 to 133 megohms input resistance; six circuit probing zero-center ranges, sensitivity as above, using coaxial cable for measurement in AVC, AFC, FM and TV circuits, 0-3/6/12/60/300/600 volts; resistance 0-2K/200K and 0-2/20/200/2000 megohms. Eight AC and DC voltage ranges at 1000 ohms/volt up to 6000 volts. DC current 0-600 microamps, 0-3/12/60/300/1200 ma, 0-12 amps. Output ranges from -26 to +70 db. In Black ripple metal case with handle. 12" x 10½" x 6". For 110-120 volts, 50-60 cycles.

- 25N21765—Shpg. wt. 20 lbs. **88.15**

Model EV-10P. As above, but in portable hardwood case with leads.

- 25N21766—Shpg. wt. 21 lbs. **90.85**

RF-10 Probe for Precision EV-10's Measures RF and UHF voltages. With 955 tube.

- 25N21784—Shpg. wt. 2 lbs. **14.11**

## HICKOK LABORATORY VTVM

4. Model 209. Measures any resistance, capacitance, AC, IF, and RF voltages from 30 cycles to 300 MC, and DC voltages ever found in a radio receiver. Ranges: AC and DC volts 0-3/12/30/120/300/1200. Input impedance 15 megohms DC, 12 meg/6 mmfd AC. DC milliamperes 0-3/12/30/120/300/1200. Capacity 0-10,000 mmfd in 2 ranges, 0-1000 mfd in 5. Inductance 50 mh - 100 henries by use of conversion chart. Resistance .1 ohm to 10,000 megohms in 8 ranges. Uses: 6SJ7, 6SN7GT, two 6X5 rectifiers. OD3/VR150 voltage regulator plus 9006 in high-frequency probe. Chrome finish panel, metal cabinet in Blue Hammertex. 14" x 16½" x 8". 105-125 volts, 50-70 cycles AC. Complete with probes, batteries, tubes.

- 25N21459—Shpg. wt. 25 lbs. **99.60**

Model PR-203. Same but in portable case 9x11½x7". Has Hickok S44A meter.

- 25N21460—Shpg. wt. 18 lbs. **94.20**

Model 203. Same as Model PR-203, but less hi-frequency probe. Measures AC up to 50 MC.

- 25N21453—Shpg. wt. 17 lbs. **84.60**

## ELECTRONICS INSTRUMENTS MULTI-ANALYST

6. Model 113-A does work of five separate instruments. Audible signal tracer for RF, IF, FM, TV and audio circuits may be used at same time other sections are being used on other sets. DC electronic voltmeter with input impedance of 26 megohms covers 0-5/10/100/500/1000 volts. External multiplier increases ranges to 5000 volts. AC VTVM has input impedance of 1.5 megohms, 0-5/10/100/500/1000 volts. Electronic ohmmeter reads 2 ohms to 1000 megohms in 5 ranges. Output meter calibrated from -20 to +60 db. Built-in speaker for tracer checks tone quality, fading, distortion and hum. Uses: 6SU7, 6U6, 6H6, 6SN7, 6AT6 and 6X5 rectifier. In metal case, complete with test leads. Overall Size: 8½x11x7". For 115 V. 50-60 cycles AC.

- 25N21687—Shpg. wt. 18 lbs. **87.71**



**PRECISION DUAL-RANGE MULTI-MASTER**



Series 858. Designed for reliable measurements in modern TV, FM, AM and other critical electronic circuits. Dual range sensitivity feature provides equivalent of another instrument at standard 1000 ohms/volt, in conformance with many point-to-point voltage readings listed by receiver service manuals. Push-button selection. Eight DC voltage ranges: 0-3/6/12/60/300/600/1200/6000 at 20,000 and 1000 ohms/volt.

Eight AC and output voltage ranges: 0-3/6/12/60/300/600/1200/6000 volts at 1000 ohms/volt. Eight DC current ranges: 0-60/120 microamps, 0-1.2/12/120/600 MA, 0-1.2/12 amps. Resistance: 0-600/60K/600K, 0-6/60/600 megohms, self-contained to 60 megohms, DB ranges -26 to +70 db. In hardwood portable case. Dimensions: 9"x10"x4 1/2".  
**25N21660—Shipping weight 17 lbs..... 56.20**

**PRECISION MODEL 40 CIRCUIT TESTER**



In compact, molded bakelite case with plastic handle. 6 AC-DC ranges at 1000 ohms/volt cover 0-3/12/60/300/1200/6000 volts. 4 DC current ranges of 0-6/60/600/6000 ma. 3 resistance ranges: 0-5M, 500M, 5 meg. 6 power ranges -22 to 70 db. 3" 400 microampere meter. 1% wire-wound and metalized resistors used throughout. Two pin jacks serve all standard functions. Recessed 6000 volt safety jack. Anodized, etched aluminum panel is resistant to both moisture and wear. 3/4"x6 1/4"x2 1/2". No external batteries or multipliers are required.

With ohmmeter batteries, test leads, prods.  
**25N21661—Shipping weight 5 lbs..... 24.25**

Leather carrying case for Series 40 circuit tester.  
**25N21665—Shipping weight 2 lbs..... 4.85**

**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: 0-6000/600M ohms, 0/6/60 meg. 6 DB -26 to 70 db. Rotary range selectors for all standard functions. In molded bakelite case with plastic handle. Dimensions: 5 1/2"x7 1/8"x3". Complete with ohmmeter batteries and test leads.  
**25N21650—Shipping weight 6 lbs..... 37.97**

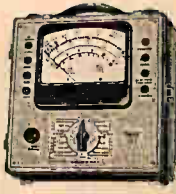
Series 80. 1000 ohms/volt, 10 meg. res, 400 microampere meter.  
**25N21651—Shipping weight 6 lbs..... 32.05**  
 Custom leather case for Series 80 and 85 tests sets.  
**25N21652—Shipping weight 2 lbs..... 8.57**

**PRECISION MULTI-RANGE TEST SET**



Model 847. Newly designed and ruggedly constructed, high speed multitester with dual sensitivity of 5000 and 1000 ohms per volt. Push-button selection. 8 AC, output and DC voltage ranges: 0-3-12-60-300-600-1200-6000; DC ranges at either sensitivity, AC and output ranges at 1000 ohms per volt. 8 DC current ranges: 0/3/1.2/3/30/300/600 MA; 0/1.2/12 Amp. 6 resistance ranges: 0/2000/20,000/200,000 ohms; 0/2/20/200 meg. 4 5/8" 200 microampere meter with 2% accuracy. 1% accurate resistors are used throughout.

All standard measurements available at two polarized tip jacks. 6000 volt ranges at special safety jacks. In modern bakelite case. Size: 7 1/2"x8 1/2"x3". With batteries and leads.  
**25N21655—Shipping weight 9 lbs..... 49.88**



**TRIPLETT ELECTRONIC ANALYZER**

1. Model 625NA. Multi-range, dual sensitivity. 6" meter with mirrored scale. Ranges: DC volts 0-1.25/5/25/125/500/2500 at 20,000 ohms/volt, 0-2.5/10/50/250/1000/5000 at 10,000 ohms/volt. AC volts 0-2/5/10/50/250/1000/5000 at 10,000 ohms/volt. DC microamps 0-50, DC milliamps 0-1/10/100/1000, DC amps 0-10. Resistances 0-2000/200,000 ohms/40 meg. DB ranges -30 to 69 db. Portable case, size 6x5 1/2x2 1/2". With test leads.  
**25N21475—Shpg. wt. 12 lbs..... 44.10**  
 Black leather carrying case.  
**25N21476—Shpg. wt. 1 lb..... 5.39**

**TRIPLETT DUAL APPLIANCE TESTER**

2. Model 2002. Tests power consumption of radios, small motors, appliances. Watts and line volts read simultaneously. Scale black on white, 2 1/4" at outer arc. AC-DC watts: 0-1500/3000 at 10 amps rated, 15 amps max. AC-DC volts: 0-130/260 volts at 125 ohms/volt. Comes in leather case, complete with connecting cord, plugs. 6 1/4"x4 1/4"x3 1/4".  
**25N21572—Shpg. wt. 4 lbs..... 35.03**

**TRIPLETT 2405-A MULTI-TESTER**

3. Large 5.6" scale for greater accuracy. 0-10/50/250/500/1000 volts AC and DC. 25,000 ohms/volt DC, 1000 ohms/volt AC. 0-5/1/5/10 AC amps, 0-10 DC amps, 0-1/10/50/250 DC ma, 0-50 microampere. 0-4000/40,000 ohms and 0-4/40 megohms on self contained batteries. Condenser in series with AC voltage ranges. DB ranges from -10 to 55 db. Capacity check of paper condensers. In portable metal case with detachable cover. Overall size: 10"x10"x5 3/4". Complete with batteries, test leads and prods.  
**25N21482—Shpg. wt. 13 lbs..... 58.55**

**EMC MODEL 120-P VOLMETER**

5. Wide range volt-ohmmeter with 6 DC voltage ranges: 0-3/15/60/300/1500/6000 at 20,000 ohms/volt. 6 AC voltage ranges: 0-6/30/120/600/3000/6000 at 10,000 ohms/volt. 5 DC current ranges: 0-60 microamps, 0-6/60/600MA, 0-6 amps. 4 resistance ranges: 0-3K/300K/3 meg/300 meg. 6 decibel ranges from -4 to 77 db. Voltage multipliers accurate to 1%. Portable model. Overall size: 8"x7 3/4"x4 1/2". Complete with test leads.  
**25N21617—Shpg. wt. 5 lbs..... 34.25**  
 Model 120, in open-face hardwood case.  
**25N21618—Shpg. wt. 4 lbs..... 29.35**

**CHICAGO-INDUSTRIAL MODEL 458**

6. 5 1/2" meter at 45° angle facilitates reading. 1000 ohms/volt all DC ranges. DC volts: 0-5/10/50/100/500/2000. AC volts 0-12.5/25/125/250/1250. DC milliamps 0-1/10/100. AC milliamps 0-2.5/25/250. Ohms full scale 1000/200,000/2,000,000. Output measurement -5 to 55db. Comes complete with test leads and batteries. Sturdy steel case.  
**25N21567—Shpg. wt. 8 lbs..... 25.48**

**RCP MODEL 447 MULTI-TESTER**

4. 1000 ohms/volt. DC volts 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 0-500/100M/1 Meg. DB -8 to 55 db. Output ranges same as AC volts. Open-face hardwood case, test leads, battery. Size: 3"x8 1/2"x5".  
**25N21722—Shpg. wt. 4 lbs..... 17.59**  
 Model 447P, in portable hardwood case.  
**25N21721—Shpg. wt. 5 lbs..... 21.51**

**GENERAL ELECTRIC ALL-PURPOSE UNIMETER MULTI-TESTER**

7. Model YMW-1A. Rapid, correct measurements of ohms, volts, current and decibels. Single rotary switch controls all ranges on 4 1/2" meter. DC functions 20,000 ohms/volt. AC 1000 ohms/volt. Ranges: AC and DC volts 0-2.5/10/50/250/1000. 3 resistance ranges from 1 ohm to 20 meg-ohms. DC current scales from 0 through 500 ma and 0 to 50 microamps. DB scale from -4 to 62 db. 0 level is 1 mw, in 600 ohms. In portable carrying steel case. Gray wrinkle finish. Overall size: 10 1/4"x9 3/8"x4". Test leads and batteries.  
**25N21568—Shpg. wt. 11 lbs..... 39.50**

8. High voltage multiplier type YYW-1. Newly designed lead and prod for use with General Electric model YMW-1A Multi-Tester described at the left. Safely and accurately measures up to 10,000 volts. Easy to use—just plug into voltage jack as with any other test lead. Ideal for checking television high-voltage supplies and transmitter power supplies. Extremely high resistance draws but small amount of current, is totally encased in efficient insulation.  
**25N21569—Shpg. wt. 2 lbs..... 18.75**





# HANDY POCKET-SIZE 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 AC and DC 0-2.5, 10/50/250/1000/5000 at 20,000 ohms/volt DC and 1000 ohms/volt AC. Output AC volts 0-2.5/10/50/250/1000/5000. DC microamperes 0-100, milliamps 0-10/100/500. DC amps 0-10. Decibels in five ranges from -10 to +52 db. Resistance 0-2000/200,000 ohms and 0-20 megohms, center scales 12/1200/120K. All ranges controlled by a single rotary switch. Polished black case

with roll-top cover. 5 1/2"x7"x3". With test leads.  
 25N21578—Shipping weight 3 lbs. .... **48.95**  
 Same as above, but less roll-top case features.  
 25N21713—Shipping weight 3 lbs. .... **38.17**

## EMC POCKET VOLTOHMMEETER



Model 100. Compact self-contained pocket voltohmmeter provides rapid, correct measurement of AC and DC voltages, resistance, milliamperes on full size 2 1/2-inch meter of 1000 ohms/volt sensitivity. AC and DC voltage ranges of 0-3/12/60/300/1200/6000 volts. DC current ranges of 0-6/6/60/600 milliamperes. Resistance ranges of 0-3000/300,000 ohms and 0-30 megohms. 4 decibel ranges from -10 to +48 db. AC volts from 25 cycles to 1 megacycle with no temperature errors. Uses no external multipliers.

Bakelite panel is mounted in hardwood case. All normal functions available from two pin jack terminals on front panel. White dial with black markings. All resistance ranges operated by internal batteries (furnished). Complete with test leads and batteries. Overall size: 6 5/8"x3 1/2"x3".  
 25N21575—Shipping weight 3 lbs. .... **21.51**

## TRIPLETT MODEL 630



Black molded plastic case with 5 1/2-inch Red-Dot 50 microampere meter movement. Ranges: 0-3/12/60/300/1200/6000 volts DC at 20,000 ohms/volt. 0-3/12/60/1200/6000 AC volts at 5,000 ohms/volt. Direct reading of six decibel ranges from -30 to +70 db. 0-60 DC microamperes, 0-1.2, 12/120 DC milliamperes, 0-12 DC amperes. Resistance: 0-1000/10,000/1 meg/100 meg. with center scales of 4.4/44/4.4K/440K. Condenser in series with AC voltage ranges. Single rotary switch. 3-7/32x5 1/2 x 7 1/2". With batteries and test leads.  
 25N21493—Shipping weight 6 lbs. **36.75**

Black leather carrying case. Space for accessories.  
 25N21577—Shipping weight 3 lbs. .... **5.75**  
 Multiplier probe to read up to 12,000 V DC on above.  
 25N21494—Shipping weight 2 lbs. .... **14.21**  
 Multiplier probe to read to 30,000 V DC on above.  
 25N21495—Shipping weight 2 lbs. .... **19.11**

## TRIPLETT 666 HH



A precision manufactured marvel of compactness that provides a complete miniature laboratory for voltage, resistance and direct current analysis. 3-inch, 400 microampere RED-DOT meter is your guarantee of a lifetime of dependable operation. Greater stability is obtained through the use of special new-type resistors. 1000 ohms/volt. 0-10/50/250/1000/5000 volt AC and DC. 0-10/100/500 milliamperes, DC at 250 millivolts. 0-2000/400,000 ohms, center scale 12/2400. Scale black numerals on white except red AC markings.

Black molded bakelite case, completely insulated. All normal functions available from two banana jacks, 5000 volt range has special banana jack. 3-1/16"x5 7/8"x2-9/16". With battery and test leads, removable alligator clips.  
 25N21576—Shipping weight 3 lbs. .... **21.56**  
 25N21577—Black Leather Carrying Case. .... **5.75**



## RCP POCKET TESTER

1. RCP Model 420-S Basic meter is 0-400 microamperes, accurate to within 2%. Voltages multipliers are metallized matched pair resistors having a tolerance of 1%. DC volts, 0-2.5/10/50/250/1000/6000. DC milliamperes, 0-1/10/100/1000. Ohmmeter, 0-500/100,000/1,000,000. AC volts, 0-10/50/250/1000/5000. Output volts, 0-10/50/250/1000/5000. Decibel meter: minus 10 to plus 69 Decibels. 6 5/8"x3 1/2"x3". White scale, black lettering. With test leads.  
 25N21723—Shpg. wt. 3 lbs. .... **23.03**

## RCP POCKET TEST SET

2. Model 449. Basic meter is 0-200 microamperes, accurate to within 2%. DC volts, 0-5/50/250/1000 at 5000 ohms/volt. AC volts, 0-5/50/250/1000 at 1000 ohms/volt. DC MA, 0.5/10/100/1000. Ohms: 0-2000/20,000/2 meg./2 meg. Decibels: -6 to 10, -14 to 26, -28 to 40, -40 to 52 db ranges calibrated for 500-ohm line. Black bakelite case with sealed jacks. 6x3x2 1/2".  
 25N21724—Shpg. wt. 2 lbs. .... **24.01**  
 Model 449-P. Same as above, but housed in portable case.  
 25N21743—Shpg. wt. 2 1/2 lbs. .... **27.93**

## CHICAGO INDUSTRIAL INSTRUMENT PORTABLE VOLT-OHM-MILLIAMMETERS

3. Model 371. Strictly a DC meter, its ranges are as follows: 0-3/15/30/300 volts, 0-25 milliamperes and a resistance scale of 0 to 10,000 ohms. Operates on 2—flashlight cells, included, 1 7/8"x2 3/4"x3 7/8".  
 25N21504—Shpg. wt. 3 lbs. .... **5.14**

Model 312. For both AC and DC volts: 0-25/50/125/250; Milliamperes to 50 mils.; up to 100,000 ohms. Black bakelite case. With test leads, batteries.  
 25N21505—Shpg. wt. 3 lbs. .... **6.61**

## SENSITIVE POCKET TESTER

4. Model 431. 400 microampere meter mounted on an etched aluminum panel, and set in a black wrinkle metal case. Inclosed battery. Ranges include: 0-15/150 volts AC—1000 ohms per volt; 0-30/300/1500 volts DC—2500 ohms per volt; 0-150 milliamperes DC; 3000/300,000 ohms full scale; 35/3500 ohms center scale.

Easy-to-read black lettering on white scale. Supplied complete with 48-inch test leads and ohmmeter batteries. Dimensions: 5-5/16x2-15/16x2 1/2" overall.  
 25N21501—Shpg. wt. 3 lbs. .... **16.27**

5. Model 421. 2 1/2" 650 microampere meter. 0-7.5/15/150/750/1500 volts AC and DC—1000 ohms per volt; 0-7.5/75 DC milliamperes; 5000/500,000 ohms full scales; 35/3500 ohms center scale. A copper-oxide rectifier. Ranges are brought out to silver-plated jacks, with engraved identification. Sturdy black bakelite case. Complete with 48" test leads, prods and ohmmeter batteries. White scale, black lettering. Size: 5-7/16x3" overall.  
 25N21500—Shpg. wt. 3 lbs. .... **21.02**

## HIGH SENSITIVITY POCKET TESTERS

6. Model 432. Three-inch square 100 microampere meter. Sensitivity of 10,000 ohms per volt on all ranges. Volts DC: 0-3/30/300/600. Ohms full scale: 0-2000/20,000/200,000/2,000,000. With test leads, battery. Dimensions: 5-7/16x3-9/16x3".  
 25N21573—Shpg. wt. 3 lbs. .... **21.02**

Model 433. Same but 50 Micro-ampere meter movement for 20,000 ohms/volt on all voltage ranges. Ohms full scale: 0-5000/50,000/500,000/5,000,000.  
 25N21574—Shpg. wt. 4 lbs. .... **22.93**

## CHICAGO INDUSTRIAL INSTRUMENT MINIATURE POCKET TESTERS



Miniature Model 450A. Ideal for service where compactness and precision are required. Dustproof construction with recessed jacks and bakelite case, this unique meter has sensitivity of 1000 ohms per volt. Multipliers are within 1%. Includes two standard penlight cells. Ranges: 0-5/10/50/500/1000 volts DC; 0-1 milliamperes DC; 5000/50,000/500,000 ohms full scale, 30/300/3000 ohms center scale. Dimensions: 3-15/16x2 7/8x2 1/2".  
 25N21506—Shpg. wt. 2 lbs. .... **10.68**

Model 425A. A sensitive compact 100 microampere meter providing 10,000 ohms per volt sensitivity on all voltage ranges. 0-10/50/100/500/1000 volts DC; 0-2000/20,000/200,000/2,000,000 ohms full scale, 30/300/3000/30,000 ohms center scale.  
 25N21508—Shpg. wt. 2 lbs. .... **14.60**

Model 451A. Similar to above but for both AC and DC at 1000 ohms/V. Resist. to 1/2 meg.  
 25N21507—Shpg. wt. 2 lbs. .... **14.60**



## SPRAGUE TO-3 TEL-OHMIKE



Speedy check locates open, intermittent, or shorted condensers without removing them from the circuit. Dial of direct reading type, color coded to selector switch. Measures .00001 to 2,000 mfd. in 4 ranges, power factor from 0 to 50% at 60 cycles, 0 to 2,500 megohms insulation resistance. 2.5 ohms to 25 megohms in 3 resistance ranges, and DC voltage in three ranges to 750 volts.

DC milliamperes measured to 75 MA. in three ranges. Capacity and power factor of electrolytic condensers measured with rated polarizing voltage applied. Electrolytic leakage measured in MA. at rated DC voltage. For 115 volts, 60 cycles. 13¼" x 10⅞" x 5".

25N21787—Shpg. wt. 15 lbs. **59.70**

## SOLAR EXAM-ETER C-R BRIDGE

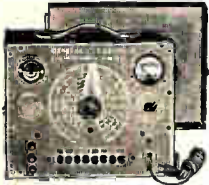


Model CF-1-60. Incorporates highly accurate Wein bridge circuit for capacitance and power factor measurements. May be switched to Wheatstone type bridge for resistance measurements. Instantly and directly measures all capacitors — mica, ceramic, paper, oil, electrolytic—from 10 mfd. to 2000 mfd. (.00001 to 2000 mfd.) Checks insulation resistance of appliances, motors, underground cables, generators, transformers from 3 to 10,000 megohms. Ohmage of resistors quickly, accurately checked from 100 ohms to 7.5 megohms.

All electronic circuit uses 1-6L6, 2-6J5G tubes. In welded steel cabinet. For 110 volts, 50-60 cycles AC. 12¾" x 10" x 5½".

25N21790—Shipping weight 13 lbs. **58.50**

## G.E. CAPACITANCE-RESISTANCE BRIDGE



Model YCW-1. Wein bridge principle assures quick, accurate measurements. Measures capacity in three ranges: .000005 mfd. to 200 mfd. Electrolytic leakage; Insulation resistance from 0 to 2500 megohms; Resistance from 5 ohms to 20 megohms in two ranges, power factor and turns ratio of transformers. DC voltmeter range from 0-500 volts. Convenient, rapid switching of ranges provided by easy-to-operate push buttons.

Simple to operate—sensitive electron-ray tube indicates when bridge is in balance—no hunting for indications. Completely portable—set in housed-in welded steel portable cabinet with cover and brackets. Complete with test leads. For use on 115 volts, 50-60 cycle AC. 9¾" x 12" x 7".

25N21597—Shipping weight 13 lbs. **49.50**

## SOLAR CAPACITOR ANALYZERS



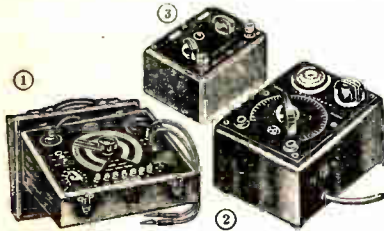
Model CBC-1-60. For measuring the capacity of any electrolytic, paper, mica, air, oil, or plastic dielectric condenser between the extremely wide limits of 10 mfd. and 800 mfd. (.00001 mfd. to 800 mfd.). Saves future repair work on power supplies by measuring power factor of all electrolytic condensers in percentage. Detects defective condensers. Electron-ray tube indicates bridge-balance condition. Checks resistance from 100 ohms to 7 megohms. Insulation resistance tests with tubes.

In portable hardwood case with cover and test leads. For use on 115 volts, 60 cycles, AC only. 9½" x 7⅞" x 6¼".

25N21767—Shipping weight 9 lbs. **39.00**

Model CBC-2-U. Universal type unit, same electronically but for use on 110-230 volts, 25-60 cycles, AC.

25N21777—Shipping weight 12 lbs. **45.96**



### C-D "BF-50" ANALYZER

1. Wein bridge with visual "eye" and power supply for leakage and insulation tests. Measures paper, mica, air and electrolytic condensers, from .00001 to 240 mfd. Measures power factor, tests for shorts. With tubes. Walnut portable case, 6½" x 12" x 9¾".

25N21727—Shpg. wt. 11 lbs. **41.80**

### C-D "BN" CAPACITOR BRIDGE

2. Measures accurately and quickly all capacitors between .00001 and 50 mfd. Wein bridge circuit, with visual "eye" to indicate balanced condition. Direct reading scale. Uses 12A7 and 6AF6G. Indicates power factor, shorts. 3⅝" x 5" x 3". For 110 volt, 60 cycles.

25N21728—Shpg. wt. 4 lbs. **19.50**

### C-D CAPACITOR DECADES

3. Use with "BN" Capacity Bridge. Calibration chart with each. Rating: 600 volt DC; 220 volt AC; Tol. ± 5%. Bakelite case. 3⅝" x 5" x 3". Shpg. wt. 4 lbs. Each

25N21729 to .011 mfd. in .0001 steps. **8.33**

25N21730 to 1.1 mfd. in .01 steps. **17.15**

25N21731 to 10.0 mfd. in 1.0 steps. **17.15**



### SILVER MODEL 904 C-R BRIDGE

4. Highly accurate, wide range, electronic bridge. Measures resistors and capacitors of all types. Has "eye" with variable sensitivity for accurate readings, power factor and insulation resistance tests, and variable applied test voltages of 0 to 500 volts DC. Four ranges each for resistance and capacitance: 10 ohms to 1000 megohms, 10 mfd. to 1000 mfd. 115 volts, 50-60 cycle, AC. 15" x 11" x 9".

25N21541—Shpg. wt. 14 lbs. **49.90**

### SPECO CAPOHMIST

5. Eliminates replacing individual resistors and capacitors in diagnosing radio trouble. Merely set the proper value on the dial and clip lead wires to doubtful resistor or condenser. Attractive light-weight metal case with handle. Size: 9" x 6" x 5".

25N21553—Shpg. wt. 6 lbs. **16.61**

### NOVAL ADAPTOR KIT

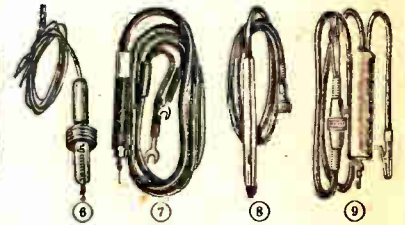
Instantly adapts Precision 900 series testers to new Noval tubes without modification. Plugs into tube socket.

25N21756—Shpg. wt. 6 oz. **1.47**

### SIMPSON DRY BATTERY TESTER

10. Model 379. Load type. For all radio and hearing aid A and B batteries. Will slip into a coat pocket. Single rotary switch selects the voltage of battery under test and brings into line the correct loading resistor. Full 3" dial with "Good," "Weak," and "Bad" markings. Needle point prods. In molded black bakelite case. 3" x 5⅞" x 2½".

25N21606—Shpg. wt. 3 lbs. **21.07**



### PRECISION HI-VOLTAGE PROBE

6. With cartridge. Enables reading of 30,000 VDC on Precision EV10 series.

25N21757—Model TV1 **15.10**

Same but for Precision 20,000 ohms/volt sets such as 85, 854, 856, 858, 954, 10-54.

25N21758—Model TV-2 **15.10**

### Hickok Crystal Demodulator Probe

7. Type 34. Used with any oscilloscope to trace up to 500 MC modulated RF thru any receiver from antenna post to detector or discriminator.

25N21759—Shpg. wt. 1 lb. **5.76**

### Ferret Germanium Crystal Probe

8. New streamlined aluminum probe using IN34 crystal diode rectifier. ±5% frequency response 20 cycles to 110 MC. Complete with 36" RG/59U cable and plug.

25N21761—Shpg. wt. 1 lb. **7.95**

### FEILER SIGNAL TRACING PROBE

9. Type TS-6C. Use with any high-gain amplifier as audible tracer or oscilloscope or VTVM as Visual tracer. IN34 crystal. Measures up to 50 volts r.f.

25N21763—Shpg. wt. 1 lb. **7.50**

### AEROVOX L-C CHECKER

11. Newly designed to check effectiveness of any capacitance or inductance at radio frequencies without removing them from circuit. Also checks alignment of RF circuits, IF amps, etc. Six freq. ranges 75 KC to 44 MC. Ranges: capacitance .00025 — 1 mfd; Inductance 0-500 mh. With 6J5G, 25Z5, 6E5, VR105. 10½" x 7½" x 5½".

25N21744—Shpg. wt. 6 lbs. **44.75**





# CATHODE RAY OSCILLOSCOPES

## DUMONT 5-INCH OSCILLOSCOPE



Model 208B. Uses 5LP1 tube. Has a calibrated removable scale. Frequency range: Y-axis, plus or minus 10% from 2 to 100,000 sinusoidal cycles; X-axis, plus or minus 15% from 2 to 100,000 sinusoidal cycles. A voltage gain of 2000 times on the Y-axis and 43 times on the X-axis. Deflection sensitivity: max. Y-axis 0.010 r.m.s. volt/in. Max. X-axis, 0.500 r.m.s. volt/in. Direct deflection plates—21 and 22 r.m.s. volts/in. Y-axis and X-axis respectively.

Recurrent sweep over continuously variable range from 2 to 50,000 cycles. In Black wrinkle enamel finished steel case. Leather handle. 110 volts, 40-60 cycles. 14 1/4" x 8 1/2" x 19 1/2".

25N21782—Shpg. wt. 67 lbs. **285.00**

## FEILER 5-INCH STETHOSCOPE



TS-7 oscilloscope allows you to see and hear audio and video signals. Addition of vacuum probe below makes RF signals audible and visual. Frequency response 20 cycles to 350 KC. Sweep oscillator 10 cycles to 35 KC. Sensitivity: Amplifiers 0.5 RMS volts/inch, Direct 18 RMS volts/inch. Input impedance: Vert. amp. 1 meg.; Horiz. amp. 5 meg.; Direct 5 meg. Uses high impedance headphones. Overall size: 17 1/2" x 14" x 9 1/2". For operation on 105-125V, 50-60 cys. AC.

25N21677—Less phones, probe..... **89.95**

Model TS-7P Vacuum-tube probe for measurement of RF frequencies, voltages, % of modulation. Plugs into front panel.

25N21755—Shpg. wt. 3 lbs. **8.25**

## HICKOK 5-INCH OSCILLOGRAPH



Model 505 Wide band vertical amplifier from 30 cycles to 1 MC. Horizontal amplifier 10 cycles to 50 KC. Deflection sensitivity .2 volts RMS/inch on vertical, .3 volts RMS/inch on horizontal, 45 volts RMS/inch on horizontal-direct. Input impedance is 1 megohm, 25 mmf. on both vertical and horizontal. Built-in Wide and Narrow-Band FM oscillator, 3-range frequency compensated attenuator network. Demodulator permits modulated signal to be viewed. Signal tracer phone jack. Self-contained mixer circuit for FM output with any good signal generator. Return trace eliminator speeds up FM and AM alignment. Modulation circuit permits internal or external FM oscillator modulation. Sinusoidal sweep with phasing control. Retractable light shield.

25N21451—Size: 14 x 11 1/2 x 15 1/2". Shpg. wt. 35 lbs. **179.00**

## SUPREME 5-INCH OSCILLOSCOPE



Model 655. All controls are grouped in a logical arrangement. Sweep oscillator has a range of 20 to 30,000 cycles selected in seven ranges. Switches for external synchronization and horizontal sweep. Sync. control for positive locking of pattern on screen. Sensitivity .3 volts RMS/inch. Vertical amplifier response 20 cycles to 100 KC. Horizontal amplifier 20 to 75 KC. Circuit will pass 60 cycle square wave. Heavy steel case finished in Blue Hammer-

loid. Aluminum panel, Maroon and Blue trim. 12" x 9 1/2" x 18".

25N21674—Shpg. wt. 32 lbs. **123.97**

Model 650. Same as 655 but with 3-inch tube and sensitivity of .5 volts RMS per inch deflection. 13 1/2" x 11 1/2" x 7 1/2".

25N21675—Shpg. wt. 23 lbs. **97.95**

## NEW RCA 5-INCH OSCILLOSCOPE



Type WO-60C Cathode Ray oscilloscope especially designed for industrial use for pressure measurements, vibration analysis, servo studies, velocity determination as well as conventional audio and radio testing. Flat from 1 cycle to 100 KC. Linear sawtooth sweep with uniform rise. Sweep rate 3 to 30,000 cycles/second. Sensitivity: Ver. amp. 0.056 volts peak-to-peak/inch; Hor. amp. 0.067 volts peak-to-peak/inch. Input imped. 1 meg./22 mfd. Overall dimensions: 14" x 9 1/2" x 19 1/2".

25N21645—Shpg. wt. 35 lbs. **345.00**

Model WO-79A wide-range portable CR 3-inch oscilloscope for laboratories, broadcasters, service engineers and industrialists. 10 cycles to 5 MC flat. .18 RMS volt/inch deflection sensitivity. Horizontal deflections 2X screen diameter. Write for descriptive folder. Calibrated meter for comparison voltage measurements. Time base voltages and 6.3 volts AC available for external use. High and low capacity input cables supplied. Retractable light shield. Light Blue-Gray wrinkle-finished metal cabinet 14 1/2" x 8 1/4" x 18 1/4". 110-115 V., 50-60 cys. AC.

25N21649—Shpg. wt. 45 lbs. **550.00**

## DUMONT 5-INCH OSCILLOSCOPE



Model 274A Amplified Sweep Circuit over continuous range from 20 to 50,000 cycles. Input impedance: Horizontal, 5 megohms; Vertical, 1 megohm. Deflection sensitivity: Max. vertical 0.65 RMS volt/in.; horizontal 0.65 RMS volt/in. Input signal may be applied to the vertical plates either directly or through the vertical amplifier through a switch provided on the front panel. Internal modulation of the horizontal beam is provided for by a separate terminal. Horizontal amplifier may be

switched to either sweep circuit or external signal. In all-metal case finished in Black wrinkle enamel. Leather handle. With scope tube grid safety plate. For 115 volts, 50-60 cycles. 14" x 8 5/8" x 19 1/4".

25N21774—Shpg. wt. 35 lbs. **136.50**

## DUMONT 3-INCH OSCILLOGRAPH



Model 164E employs 3AP1A tube. Amplified sweep circuit over continuous range from 15 to 30,000 cycles. Input impedance vertically: 1,000,000 ohms; horizontally: 800,000 ohms. Maximum potential 400 DC volts. Deflection sensitivity; maximum vertical 0.80 r.m.s. volt/in.; maximum horizontal .065 r.m.s. volt/in. Handy deflection-plate terminals available at rear. Frequency range: vertical and horizontal amplifiers both uniform within 20% from 5 to

100,000 cycles. Horizontal amplifiers may be switched to amplify either sweep circuit or external signal, so that Lissajou patterns for frequency determination may be employed. In Black wrinkle finish steel cabinet. Plastic scope screen. For operation on 115 volts, 40-60 cycles. Size: 11 5/8" x 7 3/4" x 14".

25N21557—Shpg. wt. 25 lbs. **127.20**

## HICKOK 5-INCH OSCILLOGRAPH



Model 195A Sinusoidal sweep with phasing control. Wide range sweep circuit oscillator. Deflection sensitivity; Vertical: .05 volts RMS/inch, direct 15 volts RMS/inch. Horizontal: .15 volts RMS/inch, direct 20 volts RMS/inch. Vertical amplifier 30 cycles to 50 KC. Horizontal amplifier 10 cycles to 50 KC. All input terminals at front 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 for accurate work in brightly lit rooms. Black wrinkle-finish steel cabinet with ventilating louvres. Metal handle. Rubber feet prevent marring table tops. 105-125 volts, 50-70 cycles. 8 1/4" x 18 1/2" x 13". With tubes. Gridded scope tube safety shield.

25N21594—Shpg. wt. 30 lbs. **132.00**

## G-E 3-INCH OSCILLOSCOPE



Type CRO-3A. Ideal for accurate and rapid service work. Entirely portable and compact. Designed for general radio servicing. Sweep rates from 20 to 30,000 per second in seven ranges. Fine adjustment vernier. Vertical and horizontal sensitivity .3 volts RMS/inch. 500 volts RMS maximum input either amplifier. Input impedance vertical is 1 meg., 45 mmf., horizontal 1 meg., 50 mmf. Equipped with

3AP1 cathode ray tube with green screen. All controls conveniently located on front panel. Vertical amplifier frequency response 20 cycles to 100 KC ±10% (sinusoidal.) Horizontal 28 cycles to 70 KC ±10% (sinusoidal.) Welded steel case in Gray wrinkle finish. Etched aluminum front panel. Size: 8" x 12 1/2" x 13". With tubes. For 115 volts, 60 cycles.

25N21592—Shpg. wt. 30 lbs. **89.50**

## RCA 3-INCH OSCILLOSCOPE



Model WO-55A. A general purpose, easily portable instrument, especially suitable for radio servicing. Observe visual-response curves during alignment, trace audio distortion and hum to their sources, measure frequency, determine percentage of modulation and measure peak-to-peak voltages. Miniature tubes throughout. Deflection: Vertical amplifier, 1.3 peak-to-peak

volt/inch, direct—120 peak-to-peak volt/inch; Horizontal amplifier 1.5 peak-to-peak volts/inch, direct—135 peak-to-peak volts/inch. Maximum input voltage to amplifiers 600 VDC or 750 peak-to-peak volts, direct to electrodes 360 peak-to-peak volts. Input impedance; Vertical amplifier .5 megohm/55 mmfd., direct vertical electrodes 5.6 megohms/15 mmfd. Useful range to 200 KC, calibrates as a peak-to-peak voltmeter. Clip-on graph screen is provided for measuring peak-to-peak voltages. Vacuum tube sweep generator delivers flat linear trace. Blue-Gray Hammerloid steel cabinet. 9 3/4" x 13 1/2" x 8 1/2". For 110-115 volts 50-60 cycles AC.

25N21676—Shpg. wt. 20 lbs. **129.50**



**RCA MASTER VOLTOHYMST**



Type WV-95A. Measures DC current and volts, AC, AF, and RF volts, capacity, and resistance. Burnout protected, 2% accuracy. DC volts 0-5/10/50/100/500/1000 at 11 megohms; AC volts 0-5/10/50/100/500/1000 at 5 megohms, 30 to 20,000 cps; RF volts 0-5/10/50/100 using diode probe (not furnished) flat from 30 cycles to 250 MC. DC current 0-10/100 microamps, 1/10/100 MA, 1/10 amps. Resistance 0-1000/10,000/100,000 ohms, 1/10/100 meg; Capacity .00005 mfd. to 1000 mfd. in six ranges. Gray metal cabinet. Dimensions: 10"x13½"x7½". For operation on 105-125 volts 50-60 cycles AC only. Comes complete with test leads and operating instructions.

25N21671—Shipping weight 20 lbs. .... **152.50**

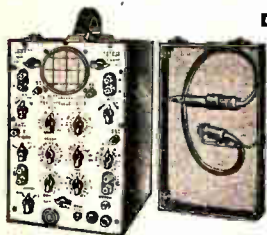
**DU MONT ELECTRONIC SWITCH**



Model 185A. Permits the simultaneous observation, for purposes of comparison, of two or more independent signals on the screen of a single cathode ray oscillograph. Square wave signals may be used in studies of vacuum tube amplifiers and other networks over a range of 10 to 500 c.p.s. Switching rate 10-2000 times per second. Input resistance 100,000 ohms. Output resistance 50,000 ohms. All controls and connections on front panel for convenience and ease of operation. Complete with tubes. Black

wrinkle finish steel cabinet. Size: 11½"x7½"x13". For operation on 115 volts 40-60 cycles only. 25N21783—Shpg. wt. 17 lbs. .... **105.00**

**DU MONT 3-IN. OSCILLOGRAPH**



Type 224-A. For study of signals such as square wave and pulse involving high frequency components. Wide band vertical amplifier flat within 3 db to 2 MC. Provision for intensity modulation. Uses Type 3GP1 3-inch cathode-ray tube. Sensitivity: Vertical, .1 RMS volts/inch; Horizontal, .7 RMS volts/inch. Built-in power line frequency sine-wave available at front panel for testing. In port-

able steel cabinet with carrying handle. Measures 14½"x8½"x15½". With test leads. For 115 V., 50/60 cyc. AC. 25N21558—Shipping weight 55 lbs. .... **290.00**

**FERRET DELUXE TEST SET**



Designed to eliminate the necessity of removing set speaker from radios for servicing. Voice coil connections permit substitution of any output transformer. Input and field switches on front panel permit matching to any single or push-pull output tubes. Provides substitution for chokes, electrolytic condensers, coupling, by-pass condensers and a wide range of resistors. Eliminates soldering until all defective parts are located and substituted. A compact, portable light-

weight unit, 6" PM speaker. Attractive front panel with Red and White lettering. Black wrinkle aluminum case with leather handle. Dimensions: 10¼"x10¼"x5½". 25N21430—Shpg. wt. 7 lbs. .... **29.95**

**PRECISION SIGNAL TRACER**



AC operated portable tracer ferrets out trouble in Broadcast, Frequency Modulation and Television sound circuits from 30 cycles to well over 100 MC. Separate channel for audio frequencies. High-frequency tube in probe with 3-tube high-gain amplifier makes all signals audible, and does not upset the most sensitive circuit. Full control of the RF-IF stage is provided by a variable control and a resistive attenuator. At-

tractive metal cabinet contains built-in speaker and all controls. Complete with tubes, high-frequency probe and test leads. For 110-115 volts, 50-60 cycles. 9½"x6½"x6¼". 25N21799—Shipping weight 11 pounds. .... **29.95**

**FEILER POCKET STETHOSCOPE**



Model TS-5 traces signal through any radio. Makes audible all signals RF, IF or AF. Hi-impedance input. Shielded RF probe with built-in high-gain miniature tube. Sturdy steel case. Size: 4½"x2¾"x8¾". 25N21762—Shpg. wt. 3½ lbs. .... **28.95**

**RCA AUDIO VOLTMETER**



Model WV-73A. Unusual sensitivity and wide range of .0001 to 1000 volts AC. Excellent frequency response over the audio range (20 cycles to 20 KC). May be used as an AF amplifier with high gain and good fidelity. Unvarying meter readings despite line voltage changes or tube replacements. Logarithmic scale and overlapping attenuator. Can be connected across high DC potentials without harm. High level rectifier designed to produce an output proportional to the average value of the full wave.

Input impedance 1 megohm & 25 mfd. 13½"x9¾"x7¼". 25N21561—Shipping weight 18 lbs. .... **175.00**

**DU MONT VOLTAGE CALIBRATOR**



Type 264-A Voltage Calibrator is designed to measure the peak-to-peak voltage of any signal viewed on a cathode-ray oscillograph. It may be used with any commercial cathode-ray oscillograph. Its square-wave output is continuously variable from 0 to 100 volts in 4 ranges. By throwing a selector switch, the signal to be measured or any of 4 ranges of calibrating voltage is applied to the input of the oscillograph, eliminating the need to switch leads between signal and calibrating 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 volts. Accuracy: ±5% of full scale on each range. Input Impedance: 20 mmd. Overall dimensions: 4½"x8"x5¾". 25N21672—Shpg. wt. 10 lbs. .... **39.50**

**DU MONT TIME BASE GENERATOR**



Type 215. Excellent high quality C-R tube driver for the laboratory and heavy duty, low-frequency use demanding absolute linearity. Sweep frequency range of .2 to 125 cycles per second. Balanced output of approximately 400 volts peak-to-peak. Single sweep initiated either manually or by observed signal. Excellent linearity assured by complete all-coverage compensating network circuit. Return trace blanking provided for. Housed in Black wrinkle finished steel portable case, with sturdy full-grip leather carrying handle. Overall dimensions: 8¾" wide, 14¼" high, 19½" deep. For Universal use on 115 or 230 volts, 40-60 cycles AC. 25N21556—Shpg. wt. 40 lbs. .... **215.00**

**FEILER SIGNAL TRACING ANALYZER**



Model TS-3. Electronic "stethoscope" that gets to the heart of radio troubles in a flash. Completely portable and AC operated. Uses biased diode detector probe. Does not upset the most critical circuits. 5" PM dynamic speaker included. Makes audible all signals—30 cps to 120 MC—RF, IF, Audio—without using special controls or 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. For use on 115 volts, 50-60 cycle. Size: 11½"x8"x6". With diode detector probe and leads. 25N21778—Shpg. wt. 22 lbs. .... **34.95**

**FEILER PORTABLE SIGNAL TRACER**



Model TS-1. Rapid point to point testing. Portable metal case contains compartment for cable, probe and batteries. Handy size probe contains tube and circuit components. Operates on one 22½-volt battery and one No. 2 flashlight cell. Requires set of magnetic headphones. With operating instructions. Overall dimensions: 6¾"x4¾"x3¾". Shipping wt. 6 lbs. 25N21797—Less batteries and phones. .... **9.85**

20N19862—22½-volt battery ..... 1.31  
20N20622—No. 2 cell. .... 6½c  
15N13892—2000 ohm headset. .... 1.47

**SIGNALETTE SIGNAL TRACER**



Vacuum-tube aid for signal tracing and quick check in alignment of sets. RF, IF and AF signals from 2500 cycles to 20mc. Used for checking sensitivity, audio amplifier gain, and AVC action. 25N21764—Each. .... **9.95**



# TRIPLET AND SHURITE PANEL METERS



## TRIPLET ROUND AND SQUARE CASE PANEL METERS

Incorporate finest materials and workmanship. Molded cases, all terminals molded in. Sapphire jewels in adjustable screws. Accurate within 2%.

### D.C. MILLIAMMETERS—ROUND AND SQUARE CASE

Range	2" Round		2" Square		3" Round		3" Square		4" Square	
	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each
0-1	25N11208	6.76	25N11288	6.76	25N11200	7.74	25N11320	7.74	25N11336	9.31
0-1.5	25N11209	6.76	25N11289	6.76	25N11201	7.74	25N11321	7.74		
0-3	25N11415	6.76	25N11290	6.76	25N11411	7.74	25N11322	7.74		
0-5	25N11416	5.68	25N11298	5.68	25N11412	6.66	25N11323	6.66	25N11337	8.23
0-10	25N11210	5.68	25N11299	5.68	25N11202	6.66	25N11324	6.66	25N11338	8.23
0-15	25N11211	5.68	25N11300	5.68	25N11203	6.66	25N11325	6.66	25N11339	8.23
0-25	25N11398	5.68	25N11306	5.68	25N11394	6.66	25N11326	6.66	25N11340	8.23
0-50	25N11212	5.68	25N11309	5.68	25N11204	6.66	25N11327	6.66	25N11341	8.23
0-100	25N11213	5.68	25N11311	5.68	25N11205	6.66	25N11328	6.66	25N11342	8.23
0-150	25N11417	5.68	25N11312	5.68	25N11413	6.66	25N11329	6.66	25N11343	8.23
0-200	25N11214	5.68	25N11313	5.68	25N11206	6.66	25N11330	6.66	25N11344	8.23
0-250	25N11418	5.68	25N11314	5.68	25N11414	6.66	25N11331	6.66	25N11345	8.23
0-300	25N11287	5.68	25N11315	5.68	25N11395	6.66	25N11332	6.66	25N11346	8.23
0-500	25N11215	5.68	25N11316	5.68	25N11207	6.66	25N11333	6.66	25N11347	8.23
0-750	25N11400	5.68	25N11317	5.68	25N11396	6.66	25N11334	6.66	25N11348	8.23
0-1000	25N11401	5.68	25N11318	5.68	25N11397	6.66	25N11335	6.66	25N11349	8.23

### D.C. MICROAMMETERS—ROUND AND SQUARE CASE

Range	2" Round		2" Square		3" Round		3" Square		4" Square	
	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each
0-50*			25N11352	17.54	25N11354	17.54	25N11358	19.11		
0-100*			25N11353	15.68	25N11355	15.68	25N11359	17.25		
0-200	25N11432	11.56	25N11350	11.56	25N11434	12.54	25N11360	14.11		
0-500	25N11433	7.94	25N11351	7.94	25N11435	8.92	25N11361	10.49		

\*With Cobalt Magnets.

### A.C. VOLTMETERS—ROUND AND SQUARE CASE

Range	2" Round		2" Square		3" Round		3" Square		4" Square	
	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each
0-5	25N11280	5.68	25N11449	5.68	25N11273	6.66	25N11459	6.66	25N11466	8.23
0-10	25N11281	5.68	25N11454	5.68	25N11274	6.66	25N11460	6.66	25N11467	8.23
0-15	25N11282	5.68	25N11455	5.68	25N11275	6.66	25N11461	6.66	25N11468	8.23
0-25	25N11283	5.68	25N11456	5.68	25N11276	6.66	25N11462	6.66	25N11469	8.23
0-50	25N11284	5.68	25N11380	5.68	25N11277	6.66	25N11381	6.66	25N11382	8.23
0-150	25N11286	6.76	25N11457	6.76	25N11279	7.74	25N11463	7.74	25N11470	9.31
0-300	25N11409	8.33	25N11458	8.33	25N11407	9.31	25N11464	9.31	25N11383	10.88
0-500	25N11410	11.56	25N11453	11.56	25N11406	12.54	25N11465	12.54	25N11386	14.11
0-15-150			25N11408	13.52	25N11408	13.52				

### A.C. MILLIAMMETERS

Model 231-S		Model 331-S		Model 231-S		Model 331-S			
No.	Each	No.	Each	No.	Each	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	5.68	0-250	25N11421	6.66
					25N11424	5.68	0-500	25N11422	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	25N11237	7.94
0-500	25N11405	8.53	25N11404	9.51

### D.C. VOLTMETERS

1000 Ohms/Volt Model 321-T.

Range	No.		Each
	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	

### HIGH RANGE DC VOLTMETERS

Range	No.	Each
0-1000	25N11363	11.66
0-2000	25N11364	11.66
0-3000	25N11365	11.66
0-4000	25N11366	11.66
0-5000	25N11367	12.54

### D.C. AMMETERS

All are supplied with external shunts except 25N10937, 25N10948, and 25N10959, which have internal shunts connected.

Range	221-T		321-T		426		626		6" Square	
	No.	Each	No.	Each	No.	Each	No.	Each	No.	Each
0-50	25N10926	8.43	25N10937	6.66	25N10948	8.23	25N10959	10.09		
0-75	25N10927	8.92	25N10938	9.90	25N10949	11.47	25N10960	13.33		
0-100	25N10928	9.51	25N10939	10.49	25N10950	12.05	25N10961	13.92		
0-150	25N10929	11.96	25N10940	12.94	25N10951	14.50	25N10962	16.37		
0-200	25N10930	11.96	25N10941	12.94	25N10952	14.50	25N10963	16.37		
0-300	25N10931	13.13	25N10942	14.11	25N10953	15.68	25N10964	17.54		

NOTE: These meters also available in ranges up to 1000 amps.

### D.C. AMMETERS

With internal shunt.

Amps.	Model 221-T		Model 321-T	
	No.	Each	No.	Each
0-1	25N11223	5.68	25N11216	6.66
0-3	25N11376	5.68	25N11372	6.66
0-5	25N11224	5.68	25N11217	6.66
0-10	25N11225	5.68	25N11218	6.66
0-15	25N11377	5.68	25N11373	6.66
0-25	25N11378	5.68	25N11374	6.66
0-30	25N11379	5.68	25N11375	6.66

### 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

### TRIPLET METER DIMENSIONS

Model	Flange	Body Dia.	Body Depth
221-T, 241-T	2 11/16"	2 7/32"	1 5/8"
227-T	2 3/8" sq.	2 5/32"	1 11/16"
231-S	2 11/16"	2 7/32"	2"
237-S	2 3/8" sq.	2 5/32"	1 27/32"
321-T, 341-T	3 1/2"	2 3/4"	1 5/8"
327-T, 347-T	3" x 3"	2 3/4"	1 11/16"
331-S	3 1/2"	2 3/4"	1 25/32"
337-S	3" x 3"	2 3/4"	1 27/32"
426, 436	4 1/4" x 4"	3 1/8"	1 13/32"
626	6" x 5 3/8"	3 1/8"	1 1/2"

\*Indicates overall body depth including terminals.

### TRIPLET POWER LEVEL INDICATOR

Up 6 and down 10 db. Zero db at 1.73 volts, 500 ohm line, 6 milliwatts. Wt. 3 lbs.  
25N11446—Model 321-T. 3" dia. 13.33

### TRIPLET THERMO AMMETERS WITH INTERNAL COUPLES

Model 341-T. 3" Round

Amps.	No.	Each
0.5	25N11229	7.74
1.0	25N11235	7.74
1.5	25N11238	7.74
2.5	25N11239	7.74
5.0	25N11246	7.74



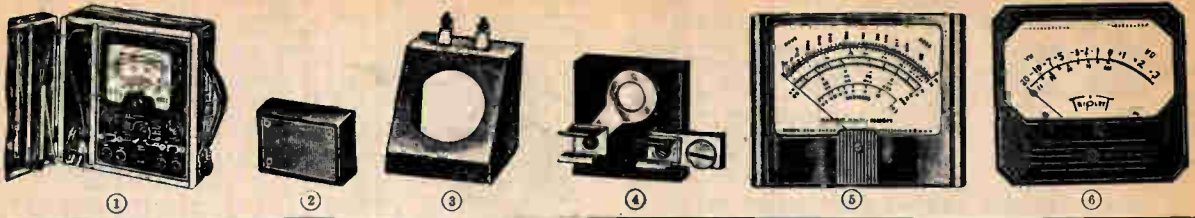
### SHURITE METERS

Model 550, round, with clamp. Model 950, square, flange mounted. Both models require 27/64" hole.

### D.C. VOLTMETERS

Range	Model 550		Model 950	
	No.	Each	No.	Each
0-1	25N11051	1.22	25N11009	1.37
0-3	25N11052	1.27	25N11010	1.42
0-5	25N11053	1.27	25N11011	1.42
0-6	25N11054	1.27	25N11012	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
0-25*	25N11060	2.35	25N11017	2.50
0-50*	25N11062	2.74	25N11019	2.89
0-100	25N11063	1.47	25N11020	1.62
0-100*	25N11064	2.94	25N11022	3.09
0-150	25N11065	1.65	25N11023	1.81
0-150*	25N11066	2.94	25N11024	3.09
0-300	25N11067	3.18	25N11025	3.33
0-500	25N11068	3.67	25N11026	3.82
3-				





**NEW MODEL 670 SUPERMETER**

1. Combination volt-ohm milliammeter plus capacity reactance, inductance and decibel measurements. Includes a special GOOD-BAD scale for checking the quality of electrolytic condensers at a test potential of 150 Volts. Ranges: D.C. Volts: 0 to 7.5/15/75/150/750/1,500/7,500 Volts. A.C. Volts 0 to 15/30/150/300/1,500/3,000 Volts. Output Volts: 0-15/30/150/300/1,500/3,000 Volts. D.C. Current: 0-1.5/15/150 Ma. 0 to 1.5 amperes. Resistance: 0-500/100,000 ohms 0 to 10 Megohms. Capacity: .001-2 Mfd. 1-4 Mfd. (Quality test for electrolytics). Reactance: 700 to 27,000 Ohms 13,000 Ohms to 3 Megohms. Inductance: 1.75 to 70 Henries, 35 to 8,000 Henries. Decibels: -10 to +18, +10 to +38, +30 to +58. Rugged, crackle-finished steel cabinet. Complete with test leads and operating instructions. Size 5 1/2" x 7 1/2" x 3". For 110 Volts 60 Cycles A.C.

25N21698—Shipping weight 5 lbs. .... **27.83**  
 25N21699—In portable carrying case. .... **35.03**

**TRIPLETT VOLUME UNIT METER**

6. Model 426—4 inch square case. Internal impedance 3900 ohms. Steady state reference 1 milliwatt. For 600 ohm line. Minus 20 to Plus 3 V.U. Scale on top arc. 0-100 volts on bottom of arc. **22.64**  
 25N11450—Shipping weight 2 lbs. ....

**BAKELITE METER BOX**

2. Sturdy heavy molded plastic meter case. Will withstand rugged usage without damage to case or meter. Overall dimensions 6 1/4" x 5 3/8". Inside dimensions: 6 1/2" x 5" x 2 1/2". Panel mounting screw inserts are molded into case. **90c**  
 25N21418—Less Panel. Shipping weight 3 lbs. ....  
 25N21419—With bakelite Panel. Shipping weight 4 lbs. .... **60c**

**RELIANCE METER CASES**

3. Black crackle finish steel cases 4 x 4 x 4 1/4" high. Two ceramic insulators. Wt. 2 lbs. **1.10**  
 25N10398—2 3/8" hole ...  
 25N10399—2 1/8" hole ...

**"METER BACK" FUSE MOUNT**

4. Mounts directly on any meter terminal. Will not touch other posts. Takes 1 x 1/4" instrument fuses only. **12c**  
 25N11049. ....

**MARION MULTI-RANGER METERS**

5. Foundation meter is designed to permit the user to assemble a highly accurate Volt-Ohm-Milliammeter. 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, 0-100M, 0-1 Meg, 0-10 Meg-ohms. -10 to 54 decibels. Available in three sizes as listed below.

No.	Model	Size	Each
25N10720	53SN	3" Square	7.84
25N10721	55	4 3/8" x 4 1/8"	9.80
25N10722	57S	7" x 8 1/2"	13.06

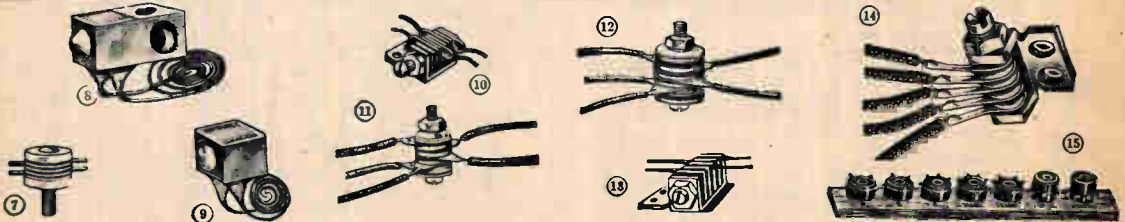
**SHUNT AND RESISTOR KIT**

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

**LITTELFUSES FOR TEST INSTRUMENTS**

Protect delicate instruments. Break circuit immediately on reaching blow point. Length 1" diam. 1/4". May be used on 250 volts AC or DC. High Speed action. Type 8AG.

Catalog No.	Rating	Max. Load Ma.	Res. on 5 Ma. Load Ohms	Each	Per 100	V-M Ohms Per V.	To Protect Milliammeters
39N12339	1/200	5	480	21c	17.15	over 1000	Galv.
39N12385	1/100	10	160	15c	12.25	1000	up to 0-1
39N12386	1/2	25	40	12c	9.80	500-1000	1-10
39N12387	1/4	60	5			100-500	10-25
39N12388	1/2	100	2			20-100	25-75
39N12390	1/4	200	3.5			10-20	75-150
39N12391	1/2	300	3	9c	7.35	5-10	150-250
39N12392	1/2	400	2			3.5	250-350
39N12393	1/2	600	2				350-500
39N12394	1	1000	.24				500-750
39N12395	2	2000	.10	6c	4.90		1000-1500



**CONANT INSTRUMENT RECTIFIERS**

General replacement for all types of meters and relays. No. 7 for applications requiring more than one milliamp current output. Disc diameter, .50 inch. No. 8 for applications requiring good frequency response and less than one mil. current output. No. 9. Same as No. 8 but outside case fits standard midjet fuse clip. Ratings shown are continuous peak. Intermittent are twice figures shown. Instantaneous are three times the figures shown.

No.	Diag.	Fig.	Volts	M.A.	Each
25N10569	1	7	10	30	2.06
25N10550	2	7	5	30	1.59
25N10551	3	7	10	30	1.59
25N10552	4	7	5	30	.88
25N10572	1	8	10	5	2.06
25N10553	2	8	5	5	1.59
25N10554	3	8	10	5	1.59
25N10555	4	8	5	5	.88
25N10556	1	9	10	5	2.06

**ELECTROX RECTIFIER UNITS**

**5ma at 3 volts DC**  
 10. Full wave copper oxide rectifier in metal housing with four insulated 3-inch leads. Continuous output of 5ma at maximum of 3 volts DC. Maximum input 4 volts A.C. **2.59**  
 25N10566. ....  
**20ma at 3 volts DC**  
 11. Full wave copper oxide rectifier in bakelite housing with five insulated 3-inch leads. Continuous output of 20ma at maximum of 3 volts DC. Maximum input 4 volts A.C. **1.95**  
 25N10567. ....  
**64ma at 3 volt.**  
 12. Full wave copper oxide rectifier with five insulated 3-inch leads. Continuous output of 64ma at a max. of 3 volts DC. Max. input 4.1 volts A.C. **1.75**  
 25N10568. ....

**BRADLEY UNIVERSAL RECTIFIER**

14. New "Coprox" model CX2E4U copper oxide rectifier fills all circuit needs within the rectifier rating. Circuit uses include:  
 Half wave. .... { 6 volts AC 3ma DC  
 12 volts AC 3ma DC  
 12 volts AC 5ma DC  
 Double half wave. .... { 6 volts AC 3ma DC  
 6 volts AC 5ma DC  
 Full wave. .... { 6 volts AC 5ma DC  
 12 volts AC 5ma DC  
 Full wave bridge. .... 6 volts AC 5ma DC  
 25N10565—Each. .... **2.06**

**RCA TESTPOINT ADAPTOR SET**

15. Permits point to point and stage to stage testing of receivers and amplifiers above the chassis, without removing from the cabinet. Voltage tests and signal tracing accomplished at the tube base after inserting in the adaptor and replaced in the tube socket. Complete set consists of one each of 4, 5, 6, and 7 prong small, 7 prong large, octal and loktal types mounted on attractive wooden base. **7.50**  
 25N21773—Shpg. wt. 2 lbs. ....

**BRUJAC METER RECTIFIER**

13. Replacement for meter circuits varying from 50 microamps up to 5 milliamps. Will stand surges up to 15 milliamps. Size: 1/4" x 1/4". **2.95**  
 25N10570. ....





# FAMOUS IRC RESISTORS

## IRC INSULATED RESISTORS — TYPE BT METALLIZED



Newly-designed compact size general purpose resistors with a metallized element sheathed in an overall covering of moisture-proof phenolic compound. Non-inductive. Have pig-tail wire leads. Tolerance +10%. 5% available on special 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.
0.47	4.7	47	470	4700	47000	0.47	3.9
0.56	5.6	56	560	5600	56000	0.51	4.7
0.68	6.8	68	680	6800	68000	0.56	5.6
0.82	8.2	82	820	8200	82000	0.68	6.8
1.0	10.0	100	1000	10000	100000	0.82	8.2
1.2	12.0	120	1200	12000	120000	1.0	10.0
1.5	15.0	150	1500	15000	150000	1.2	12.0
1.8	18.0	180	1800	18000	180000	1.5	15.0
2.2	22.0	220	2200	22000	220000	1.8	18.0
2.7	27.0	270	2700	27000	270000	2.2	22.0
3.3	33.0	330	3300	33000	330000	2.7	
3.9	39.0	390	3900	39000	390000	3.3	

1/2 Watt—BTS	1 Watt—BTA	2 Watt—BT-2
Size: 1 1/4" x 1/2"	Size: 1 1/4" x 3/4"	Size: 1 1/4" x 3/4"
Range 470 ohms to 22 megohms.	Range 330 ohms to 22 megohms.	Range 470 ohms to 22 megohms.
7N5206	7N5207	7N5263
100 of one value. 4c	100 of one value. 6c	100 of one value. 8c
Each	Each	Each

## "BW" INSULATED WIRE-WOUND RESISTORS

Similar to the BT units listed above, but contain a wire wound element, completely encased in molded compound. Tolerance ±10%. Order sizes desired from tabulated listing above. Specify Resistance.

1/2 WATT—BW-1/2	1-Watt—BW-1	2-Watt—BW-2
Size: 1/2" x 1/2". Range 0.47 to 820 ohms.	Size: 1 1/4" x 1/4". Range 0.47 to 4700 ohms	Size: 1 1/4" x 3/4". Range 0.47 to 6800 ohms.
7N5298	7N5259	7N5299
100 of one value. 5c	100 of one value. 6c	100 of one value. 8c
Each	Each	Each

## PRECISION WIRE-WOUND RESISTORS



Scientifically designed and constructed. Dependable precision meter multiplier and shunts. Guaranteed accuracy 1%. Non-inductively wound. Winding is specially impregnated which insures constant resistance at all frequencies to 50,000 cycles. WW-2 is 2 1/4" x 1/2". Has ferrules with binding post terminals. WW-4 has lug type terminals.

### TYPE WW-4

No.	Ohms	Ea.	No.	Ohms	Ea.	No.	Ohms	Ea.
7N5125	200	1.00	7N5134	20000	1.12	7N5101	250000	2.06
7N5126	300	1.00	7N5135	25000	1.12	7N5102	300000	2.23
7N5124	500	1.00	7N5136	30000	1.12	7N5122	400000	2.76
7N5127	1000	1.00	7N5138	40000	1.12	7N5123	500000	2.94
7N5128	2500	1.00	7N5139	50000	1.12	Type WW-2		
7N5129	5000	1.03	7N5140	60000	1.32			
7N5130	7500	1.03	7N5141	75000	1.32	7N5193	300000	4.50
7N5131	10000	1.03	7N5142	100000	1.44	7N5194	1 Meg.	5.67
7N5132	12500	1.03	7N5099	150000	1.65	7N5202	1 1/2 Meg.	9.03
7N5133	15000	1.03	7N5100	200000	1.88	7N5115	2 Meg.	11.76

## IRC RESISTO-CABINET

No charge for cabinet when you buy any of the following resistor kits. Sturdy, four-drawer (7 compartments in each) cabinets 11" x 5 1/2" x 5 1/2". Blue and Silver finish. Shipping weight 8 lbs.

Kit No. 1: Total 59 resistors—8 type BTS 1/2 watt, 37 type BTA 1 watt, 10 type AB 10 watt fixed, 4 type ABA 10 watt adjustable resistors. 7N5281—List value... 15.03 **NET 9.95**

Kit No. 2: 100—1/2 watt resistors, 6 type BW, 94 type BTS. 7N5280—List value... 13.12 **NET 7.71**

Kit No. 3: 83—1-watt resistors 6 type BW-1, 77 type BTA. 7N5282—List value... 14.11 **NET 8.30**



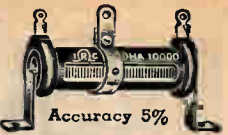
## IRC BASIC RESISTOR KIT

A carefully selected group of most popular resistor values and sizes. You pay for contents only. Kit contains: 160 BTS 1/2 watt res., 115 asst. BTA 1 watt res., 60 asst. BW 1/2 watt WW res., 20 asst. BW 1 watt WW res., 22 asst. AB 10 watt WW res., 8 asst. Volume controls, 3 asst. Switches, 3 asst. Shafts. All metal cabinet for the bench or wall. Individual, identified compartments. Two drawers and one compartment empty for tools and solder. Attractive Yellow, Blue and Silver finish. Size: 17 x 13 1/4 x 7 1/2". 7N5291 **47.76**



## IRC POWER WIRE WOUND VARIABLE RESISTORS

For all industrial and radio uses. Dissipate heat rapidly, withstand heavy overloads, have great mechanical strength. All supplied with contact band. Above ten watts have silver contact. Mounting brackets with all but ten watt units. Sizes: ABA, 1 1/4" x 1/2"; DHA, 2 1/2" x 1/2"; EPA, 4 1/4" x 3/4"; ESA, 6 1/2" x 3/4"; HAA, 6 1/2" x 1 1/8"; HOA, 10 1/2" x 1 1/8".



Accuracy 5%

Extra Contact Sliders for Resistors

7N5213—for 10 watt	} 12c
7N5219—for 25 watt	
7N5217—for 50-80 watt	
7N5218—for 100-200 watt	

Available resistances in each wattage indicated by price:

OHMS	10 Watt 7N5262 ABA	25 Watt 7N5224 DHA	50 Watt 7N5225 EPA	80 Watt 7N5226 ESA	100 Watt 7N5227 HAA	200 Watt 7N5228 HOA
5	\$0.71	\$0.92	\$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	1.74	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			
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	1.39		
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		
50M			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



Accuracy 5%

Machine wound on non-hygroscopic cores, with heavy insulating coating that resists mechanical damage. Sizes: AB, 1 1/4" x 1/2"; DG, 2" x 1/2"; EP, 4 1/4" x 1/2"; HA, 6 1/2" x 1 1/8"; HO, 10 1/2" x 1 1/8".

Available resistances in each wattage indicated by price:

Ohms	10 Watt 7N5210 AB	20 Watt 7N5220 DG	50 Watt 7N5221 EP	100 Watt 7N5222 HA	200 Watt 7N5223 HO
1	\$0.34	\$0.44			
5	.34	.44	.80		
10	.34	.44	.80		
25	.34	.44	.80		
50	.34	.44	.80		
75	.34	.44			
100	.34	.44	.80	1.20	1.59
150	.34	.44			
200	.34	.44	.80		
250	.34	.44	.80	1.20	1.59
500	.34	.44	.80	1.20	1.59
750	.34	.44	.80	1.20	1.59
1000	.34	.44	.80	1.20	1.59
1250	.37	.46		1.22	
1500	.37	.46	.85	1.22	1.62
2000	.37	.46	.85	1.22	1.62
2250	.37	.46			
2500	.37	.46	.85	1.22	1.62
3000	.37	.46	.85		
3500	.37	.46			
4000	.37	.46	.85		
4500	.37	.46			
5000	.37	.46	.85	1.22	1.62
6000	.42	.52	.93		
7000	.42	.52	.93	1.32	1.73
7500	.42	.52	.93	1.32	1.73
10,000	.42	.52	.93		
12,000	.47	.55	1.03		
12,500	.47	.55	1.03		
15,000	.47	.55	1.03	1.45	1.84
20,000	.47	.55	1.03	1.45	1.84
25M	.51	.64	1.15	1.57	1.91
30M		.64	1.15		
35M		.64			
40M		.64	1.15		
50M		.73	1.25	1.66	1.98
60M			1.25		
75M			1.44	1.76	2.09
100M			1.56	1.86	2.20





### "RITEOHM" PIE-WOUND PRECISION RESISTORS

Non-inductive. Ceramic bobbin, enameled wire. Mount with No. 6 screw. Tolerance 1%. Vacuum impregnation. Units above 400M are 1 watt, 400M and below are 1/2 watt. All are 1/2" in diameter. Up to 200M are 1/2" long, thru 400M are 3/4" long, others are 1" long.

1	250	2500	15M	50M	175M	500M
10	300	4000	20M	60M	200M	600M
25	500	5000	22,500	75M	225M	750M
50	1000	7500	25M	100M	250M	900M
100	1500	10000	30M	125M	300M	1 Meg.
200	2000	12500	40M	150M	400M	

#### Specify Resistance

No.	Ohms	Each	No.	Ohms	Each
7N7108	1 thru 500	\$0.65	7N7117	225M thru 250M	\$1.99
7N7109	1000 thru 2500	.69	7N7118	300M	2.18
7N7110	4000 thru 10,000	.76	7N7119	400M	2.29
7N7111	12,000 thru 15M	.84	7N7120	500M	2.60
7N7112	20M thru 50M	1.04	7N7121	600M	3.25
7N7113	60M thru 75M	1.22	7N7122	750M	3.44
7N7114	100M	1.42	7N7123	900M	3.64
7N7115	125M	1.61	7N7124	1 meg.	4.02
7N7116	150M thru 200M	1.80			



### BROWN DEVIL FIXED RESISTORS

Wire-wound, vitreous enameled units. Tinned copper terminals. Protected against humidity. Tolerance 10%. Wt. 3 oz.

#### OHMS

0.4†	10	150	750	2,250†	8,000	20,000	75,000*
0.6†	12†	200	800	2,400†	8,500†	22,500†	80,000*
0.8†	15†	225†	850†	2,500	10,000	25,000	85,000*
1†	20†	250	900†	2,750†	11,000†	30,000	90,000*
1.2†	25	300	1,000	3,000	12,000†	35,000	95,000*
1.3†	30†	350	1,100†	3,500†	12,500	40,000	100,000*
1.5†	35†	400	1,200†	4,000	13,500†	45,000	
2†	40†	450†	1,250	4,500†	14,300†	50,000	
3†	50	500	1,500	5,000	15,000	55,000*	
4†	75	600†	1,750†	6,000	16,000†	60,000*	
5	100	650†	1,850†	7,000†	17,500†	65,000*	
7.5†	125†	700†	2,000	7,500	18,000†	70,000*	

#### 5 WATT

All sizes to 10,000 ohms except †

No.	Ohms	Each
7N7103	1-1000	\$0.31
7N7103	1100-5000	.33
7N7104	6000-10000	.36

#### 10 WATT

All sizes except those marked \*

No.	Ohms	Each
7N7150	0.4-1000	\$0.34
7N7150	1100-5000	.37
7N7150	6000-10000	.42
7N7151	11000-20000	.47
7N7151	22500-25000	.51
7N7151	30000-50000	.57

#### 20 WATT

All sizes except those marked †

No.	Ohms	Each
7N7152	0.4-1000	\$0.44
7N7152	1200-5000	.46
7N7152	6000-10000	.52
7N7152	12500-15000	.55
7N7153	20000	.55
7N7153	25M-40M	.64
7N7153	45M-50M	.73
7N7154	55M-60M	.73
7N7154	65M-80M	.86
7N7154	85M-100M	.99

### OHMITE "DIVIDOHM" ADJUSTABLE RESISTORS



Wire wound, vitreous enameled on porcelain cores with a narrow strip of wire exposed to form contact surface. With slider.

1	25*†	250*†	1,000*†	3,000*	7,000	12,000	50,000
2	50*†	300	1,250	3,500	7,200	15,000†	60,000
3	75	400	1,500	4,000*	7,500*	20,000†	80,000
4	100*†	500*†	2,000*	4,500	8,000	25,000†	100,000
5*	150	750*	2,250	5,000*†	9,000	30,000†	
10*†	200	800	2,500*†	6,000	10,000*†	40,000†	

Available only in standard RMA resistances listed above as shown in each wattage group.

#### 10 WATT 1 1/2" x 1/2"

In values marked by \* to 10M.

No.	Ohms	Each
7N7174	5-1000	\$0.71
7N7174	2M-5M	.73
7N7174	7500-10M	.78

#### 50 WATT 4" x 1/2"

In all values listed in chart.

No.	Ohms	Each
7N7178	1-4	\$1.47
7N7178	5-1M	1.16
7N7178	1250-5M	1.21
7N7179	6M-10M	1.28
7N7179	12M-20M	1.39
7N7179	25000	1.50
7N7180	30M-40M	1.50
7N7180	50000	1.62
7N7181	60000	1.62
7N7181	80000	1.80
7N7181	100000	1.91

#### 25 WATT 2" x 1/2"

In all values marked by \*.

No.	Ohms	Each
7N7175	5-1000	\$0.92
7N7175	2M-5M	.93
7N7176	7500-10M	1.00
7N7176	15000	1.03
7N7177	20000	1.03
7N7177	25000	1.11

#### 100 WATT 6 1/2" x 1/2"

In all values marked †.

No.	Ohms	Each
7N7182	10-1M	\$1.74
7N7182	2500-5M	1.79
7N7183	10000	1.89
7N7183	15M-20M	2.01
7N7183	25000	2.14
7N7184	30M-40M	2.14
7N7184	50000	2.22

#### 200 WATT 10 1/2" x 1/2" - In all values marked †.

No.	Ohms	Each	No.	Ohms	Each
7N7185	10-1M	\$2.14	7N7186	15M-20M	\$2.42
7N7185	2500-5M	2.18	7N7186	25M-40M	2.47
7N7185	10000	2.30	7N7186	50000	2.53

## OHMITE NATIONALLY-KNOWN RESISTORS

### OHMITE "LITTLE DEVIL" INSULATED RESISTORS

Ready for any job anywhere are these tiny completely sealed and insulated molded plastic constructed resistors. Soft copper wire pigtail leads. Used in critical equipment and in the nation's foremost laboratories. Dissipate heat rapidly, have low noise level and low voltage coefficient. Tolerance ±10%.



#### STANDARD RMA CODE—SPECIFY RESISTANCE

Ohms	Ohms	Ohms	Ohms	Megohms	Megohms	Megohms
10	100	1,000	10,000	0.1	1.0	10.0
12	120	1,200	12,000	0.12	1.2	12.0
15	150	1,500	15,000	0.15	1.5	15.0
18	180	1,800	18,000	0.18	1.8	18.0
22	220	2,200	22,000	0.22	2.2	22.0
27	270	2,700	27,000	0.27	2.7	...
33	330	3,300	33,000	0.33	3.3	...
39	390	3,900	39,000	0.39	3.9	...
47	470	4,700	47,000	0.47	4.7	...
56	560	5,600	56,000	0.56	5.6	...
68	680	6,800	68,000	0.68	6.8	...
82	820	8,200	82,000	0.82	8.2	...

#### 1/2 WATT

Size 1/4" x 1/4"  
Max. 350 volts  
7N7100.....8c  
100 of each value.  
Each.....4c

#### 1 WATT

Size 1/2" x 1/2"  
Max. 500 volts  
7N7101.....10c  
100 of one value.  
Each.....6c

#### 2 WATT

Size 1 1/4" x 1/2"  
Max. 1000 volts  
7N7102.....15c  
100 of one value.  
Each.....8c

NOTE: We can supply all RMA standard value resistors in 5% tolerance in multiple quantities of 10 of one value. Send us your specifications and we will gladly submit quotations.

### VITREOUS ENAMELED FIXED RESISTORS

Lug type resistors, wire-wound on porcelain cores. The vitreous enameled coating both protects and insulates the wire. The best alloy and largest possible wire size are used for each resistance. Vitreous enameled coating retains the uniform spacing. Wire is mechanically locked and soldered to the terminal lugs. Tolerance is 10%.



1	25	200†	1500	5000	15,000	45,000*†	100,000
2	50	250	2000	6000*†	20,000	50,000	125,000†
3	75	500	2500	7500	25,000	60,000*	150,000†
4	100	750	3000	8000†	30,000*	70,000*†	175,000†
5	150	800†	3500*†	10,000†	35,000†	75,000	200,000†
10	150	1000	4000†	12,000†	40,000*	80,000*†	225,000†
							250,000†

Available only in standard RMA ohmage within each wattage range.

#### 25 WATT

In all values thru 100M except 8,000 and 75,000.

No.	Ohms	Each
7N7125	1-1000	\$0.47
7N7125	1500-5000	.51
7N7126	6M-10M	.55
7N7126	12M-15M	.59
7N7127	20000	.59
7N7127	25M-40M	.67
7N7127	45M-50M	.76
7N7128	60000	.78
7N7129	70000	.89
7N7130	80000	.89
7N7131	100M	1.02

#### 100 WATT

In all values except those marked †.

No.	Ohms	Each
7N7139	1-4	\$1.68
7N7139	5-1000	1.20
7N7139	1500-5000	1.22
7N7140	7500-10M	1.32
7N7140	15M-20M	1.45
7N7140	25000	1.57
7N7141	30M-40M	1.57
7N7141	50000	1.66
7N7142	60000	1.66
7N7142	75000	1.76
7N7143	100000	1.86

#### 50 WATT

In all values except those marked \*

No.	Ohms	Each
7N7132	1-4	\$1.11
7N7132	5-1M	.80
7N7132	1500-5M	.85
7N7133	7500-10M	.93
7N7133	12M-20M	1.03
7N7133	25000	1.15
7N7134	35000	1.15
7N7134	50000	1.25
7N7134	75000	1.44
7N7134	100M	1.56
7N7135	125M	1.66
7N7136	150M	1.71
7N7136	175M	1.78
7N7137	200M	1.84
7N7137	225M	2.08
7N7138	250M	2.08

#### 200 WATT

In all values except those marked †.

No.	Ohms	Each
7N7144	1	\$2.20
7N7145	2	2.20
7N7146	3	2.20
7N7147	4	2.20
7N7148	5	2.20
7N7148	10-1000	1.59
7N7148	1500-5M	1.62
7N7148	7500-10M	1.73
7N7149	15M-20M	1.84
7N7149	25M-40M	1.91
7N7149	50M-60M	1.98
7N7149	75000	2.09
7N7149	100000	2.20

### STANDARD ADJUSTABLE SLIDERS

#### Screwdriver Type

Diam.	No.	Each
1/4"	7N7193	12c
3/8"	7N7194	12c
1/2"	7N7195	15c
3/4"	7N7196	18c

#### Bakelite Knob Type

No.	Each
7N7197	18c
7N7198	24c
7N7199	24c



# RELIANCE RESISTORS—1/2 TO 75 W.

## 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.

All resistors are constructed to the highest quality standards. Low noise level. Each is compactly made to small size consistent with ratings for use where space is critical. RMA preferred values only. Guaranteed accuracy  $\pm 10\%$ .

Resis. Ohms	1/2 Watt Cat. No.	1 Watt Cat. No.	Resis. Ohms	1/2 Watt Cat. No.	1 Watt Cat. No.
220	7N4250	7N4300	56,000	7N4278	7N4328
270	7N4239	7N4354	68,000	7N4279	7N4329
330	7N4245	7N4348	82,000	7N4280	7N4330
390	7N4251	7N4301	100,000	7N4281	7N4331
470	7N4252	7N4302	120,000	7N4252	7N4332
560	7N4253	7N4303	150,000	7N4283	7N4333
680	7N4254	7N4304	180,000	7N4240	7N4335
820	7N4255	7N4305	220,000	7N4284	7N4334
1000	7N4256	7N4306	270,000	7N4285	7N4335
1200	7N4257	7N4307	330,000	7N4286	7N4336
1500	7N4258	7N4308	390,000	7N4247	7N4350
1800	7N4259	7N4309	470,000	7N4287	7N4337
2200	7N4260	7N4310	560,000	7N4241	7N4356
2700	7N4261	7N4311	680,000	7N4242	7N4357
3300	7N4262	7N4312	820,000	7N4298	7N4353
3900	7N4263	7N4313	Megohms	7N4288	7N4338
4700	7N4264	7N4314	1.0	7N4243	7N4358
5600	7N4265	7N4315	1.2	7N4248	7N4351
6800	7N4266	7N4316	1.5	7N4244	7N4359
8200	7N4268	7N4318	1.8		
10,000	7N4269	7N4319	2.2	7N4289	7N4339
12,000	7N4270	7N4320	2.7	7N4249	7N4352
15,000	7N4271	7N4321	3.3	7N4290	7N4340
18,000	7N4272	7N4322	3.9	7N4291	7N4341
22,000	7N4273	7N4323	4.7	7N4292	7N4342
27,000	7N4274	7N4324	5.6	7N4293	7N4343
33,000	7N4275	7N4325	6.8	7N4294	7N4344
39,000	7N4276	7N4326	8.2	7N4295	7N4345
47,000	7N4277	7N4327	10	7N4297	7N4347

Each 1/2-Watt Size **4c** Each 1-Watt Size **5c**  
 10 for 32c.....100 for 2.88 10 for 40c.....100 for 3.60

### KIT OF 100 RESISTORS

An assortment of 100 popular carbon resistors. Kit contains approximately 50 1-watt, 25 1/2-watt and 25 1/4-watt resistors. All are standard RMA color coded. Shipping weight 2 lbs.

7N3816—Kit of 100 resistors. Each Kit.....**1.50**

### RESISTOR COLOR CARD INDICATOR

Permits instant calculation of the value in ohms of any RMA color coded resistor. The circular rule can be set in a moment—readings are accurate. Full directions printed on indicator.

7N3847.....**10c**

Note: Calculator above free with orders for 20 or more Reliance carbon resistors.



### OHMITE POCKET-SIZE OHM'S LAW CALCULATOR

Solves Ohm's Law problems quickly and easily with one setting of slide. No decimal points to cause confusion—all values are direct reading. Requires no slide-rule knowledge. Size: 3"x9". RMA Resistor Color Code chart also included for handy reference.

23N19711—Postpaid in U.S.A.....**25c**

### 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 contact with larger tools. Resistor or condenser leads need not be bent as drawers measure 5 1/4" deep. Six drawers with four compartments each assure ample space to file 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" high, 7" wide, 6 1/2" deep.



7N22363—Shipping weight 5 lbs.....**3.90**

## 5 AND 10 WATT WIRE-WOUND RESISTORS

Tolerance within 5%



All are wound with genuine nichrome wire on fine ceramic tubes. Guaranteed accuracy 5%. Tinned copper wire leads and lugs for easy soldering. When ordering, specify size desired.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	
5	50	250	800	1500	2750	8000	
10	75	400	900	1750	3000	9000	
15	100	500	1000	2000	4000	10000	
20	150	600	1100	2250	5000	12500	
25	200	750	1250	2500	6000	15000	
*Available in 10-watt size only.						7000	17500
7N4438—5-Watt Resistors, Each, any size.....						<b>17c</b>	
7N4439—10-Watt Resistors, Each, any size.....						<b>21c</b>	



### 10 WATT ADJUSTABLE WIRE WOUND

Vitreous enamel coated. Lug terminals. 1 3/4"x5/16" O.D.; with mtg. brkts.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Each
10	50	150	500	2000	5000	<b>29c</b>
25	100	200	1000	2500	10000	

7N4445—Specify resistance.  
 7N4446—Extra Slider for above. Each.....**5c**

### RELIANCE VITREOUS RESISTORS

Guaranteed plus or minus 10%. All are non-porous, dissipate heat rapidly, have positive lug contacts and do not change in value. Each marked for resistance.



10-Watt Rating 1/2"x1 3/4"								
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					
Each, Any Size.....				<b>20c</b>	5 for.....			<b>90c</b>

20-Watt Rating 1/2"x2"				50-Watt 3/4"x4"				
No.	Ohms	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	7N4952	100000	7N4985	50000			
Each.....		<b>32c</b>	Each.....		<b>32c</b>	Each.....		<b>66c</b>

### SEMI-VARIABLE WIRE-WOUND RESISTORS



Vitreous enamel coated. Adjustable lugs have small contact button so several taps can be used without much resistance. With brackets, 1 slider.

25 Watts (2x9/16")		50 Watts (4 1/2 x 3/4")		75 Watts (6 1/2 x 3/4")			
No.	Ohms	No.	Ohms	No.	Ohms		
7N20740	1	7N20770	100	7N20800	100		
7N20741	2	7N20771	200	7N20801	200		
7N20742	3	7N20772	300	7N20802	300		
7N20743	5	7N20773	400	7N20803	400		
7N20744	10	7N20774	500	7N20804	500		
7N20745	20	7N20775	800	7N20805	750		
7N20746	50	7N20776	1000	7N20806	1000		
7N20747	100	7N20777	1500	7N20807	1500		
7N20748	200	7N20778	2000	7N20808	2000		
7N20750	500	7N20779	2500	7N20809	2500		
7N20751	750	7N20780	3000	7N20810	3000		
7N20752	800	7N20781	4000	7N20811	4000		
7N20753	1000	7N20782	5000	7N20812	5000		
7N20754	1500	Each.....		<b>66c</b>	Each.....	<b>85c</b>	
7N20755	2000	7N20783	6000	7N20813	6000		
7N20757	2500	7N20784	7000	7N20814	7000		
7N20759	4000	7N20785	8000	7N20815	7500		
7N20760	5000	7N20786	9000	7N20816	10000		
Each.....		<b>42c</b>	7N20787	10000	7N20817	15000	
7N20761	6000	7N20788	12000	7N20818	20000		
7N20762	7000	7N20789	15000	7N20819	25000		
7N20763	8000	7N20790	20000	Each.....		<b>98c</b>	
7N20765	10000	7N20791	25000	7N20820	30000		
7N20795	15000	Each.....		<b>73c</b>	7N20821	40000	
Each.....		<b>46c</b>	7N20792	30000	7N20822	50000	
7N20796	20000	7N20793	40000	Each.....		<b>1.10</b>	
7N20797	25000	7N20794	50000	7N20823	100000		
Each.....		<b>54c</b>	Each.....		<b>83c</b>	Each.....	<b>1.22</b>

7N20825—Extra sliders to fit 25 watt resistors.....Each **5c**  
 7N20824—Slider for 50 and 75 watt resistors.....Each **5c**



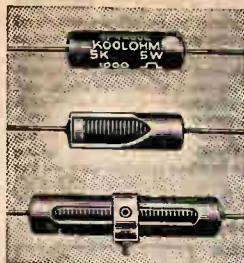
**OHMITE POWER RHEOSTATS**



Designed to produce permanently smooth, close control. Ceramic and metal construction. Provided with insulated shafts with provision to keep the rheostat from turning over 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 3/8". Wt. 1 lbs.

**POWER RHEOSTATS AND RESISTORS**

**SPRAGUE "KOOLOHM" RESISTORS**



New Tropicalized fixed resistors. Insulation has high dielectric strength, withstands red heat and is impervious to moisture. Units are which permit mounting in contact encased in tubular ceramic shells with metal parts without shorting. 2 1/2 tinned copper wire leads. Meet requirement of television and other high-voltage circuits. Negligible resistance drift. Insulated for 10,000 volts. Accuracy guaranteed ±5%. Non-inductive types show zero inductance up to 50 mc. and distributed capacitance is only 2 mmfd.

**Model "H," 25W, 1-9/16" dia.**

No.	Total Ohms	Max. Amps.	Each
8N8350	1	5.000	3.44
8N8362	2	3.540	3.06
8N8351	3	2.880	
8N8363	6	2.040	
8N8352	8	1.770	
8N8364	10	1.580	
8N8365	15	1.290	
8N8366	25	1.000	
8N8353	35	.845	
8N8367	50	.707	
8N8390	75	.575	
8N8368	100	.500	3.44
8N8369	125	.445	
8N8370	175	.375	
8N8371	250	.316	
8N8391	350	.267	
8N8372	500	.222	
8N8392	750	.182	
8N8373	1,000	.155	
8N8374	1,500	.129	
8N8375	2,500	.100	
8N8376	3,500	.084	3.64
8N8377	5,000	.070	

**Model "J," 50W, 2-5/16" dia.**

No.	Ohms	Amps.	Each	
8N7200	0.5	10.000	3.82	
8N7201	1	7.070		
8N7202	2	5.000		
8N7203	4	3.530	3.44	
8N7204	8	2.500		
8N7205	12	2.040		
8N7206	16	1.760		
8N7207	22	1.500		
8N7208	35	1.190		
8N7209	50	1.000		
8N7210	80	.790		
8N7211	125	.630		
8N7212	150	.575		
8N7213	225	.470	3.64	
8N7214	300	.408		
8N7215	500	.316		
8N7216	800	.250		
8N7217	1,000	.224		
8N7218	1,600	.176		
8N7219	2,500	.141		
8N7220	3,500	.119		3.82
8N7221	5,000	.100		
8N7222	8,000	.079		
8N7223	10,000	.070		

**MODEL "K"—100 WATT (3/8" DIA.)**

No.	Ohms	Amps.	Each	No.	Ohms	Amps.	Each
8N8378	10	3.160	5.35	8N8383	500	.447	5.35
8N8379	25	2.000					
8N8380	50	1.410					
8N8381	100	1.000					
8N8382	300	.575					
8N8383	500	.447	5.73	8N8384	1,000	.316	5.73
8N8384	1,000	.316					
8N8385	2,500	.200					
8N8386	5,000	.141		6.12			
8N8387	10,000	.100		6.88			

**CENTRALAB POWER RHEOSTATS**

Ideal for use as motor speed controls, charging rate regulators, etc. All metal frame; core insulated with treated asbestos. Wire wound. All for single-hole mounting; knob supplied. Diameter 2"; bushings 3/8x1/2" long. Depth behind panel: 25-watt units 3/4"; 50-watt units 1 1/4". All have tinned solder lug terminals for easy connections. Shipping wt. 1 lb.



50 Watts				25 Watts			
No.	Ohms	No.	Ohms	No.	Ohms	No.	Ohms
8N8962	2	8N8994	300	8N8977	2	8N8957	250
8N8985	10	8N8990	500	8N8978	6	8N8982	400
8N8987	25	8N8991	1000	8N8979	15	8N8958	500
8N8988	60	8N8960	2500	8N8980	50	8N8983	1000
8N8986	100	8N8992	5000	8N8976	100	8N8984	5000
8N8989	150			8N8981	150		

Each..... 1.47 Each..... 1.18

**CLAROSTAT WIREWOUND CONTROLS**

Wirewound controls with alloy wire precisely wound on thin bakelite strip. Perfect sliding contact. 1/4" shaft, 1 1/2" long.

- \*—Rheostat L—Untuned Antenna
- S—Standard Potentiometer (Uniform)
- V—"C" Bias Control
- W—Screen Grid; Phono Control
- U—Antenna & "C" Bias (1 Tube)



No.	Ohms	No.	Ohms	No.	Ohms	No.	Ohms
8N7048*	1	8N7058*	40	8N7092	1000S	8N7080	7500U
8N7049*	2	8N7099	50S	8N7090	2000S	8N7079	7500U
8N7050*	3	8N7060*	60	8N7089	2000L	8N7078	10000S
8N7051*	4	8N7061*	75	8N7088	2000V	8N7075	10000U
8N7052*	6	8N7098	10CS	8N7087	3000S	8N7074	10000U
8N7053*	10	8N7097	20CS	8N7086	3000U	8N7073	15000S
8N7054*	15	8N7096	30CS	8N7047	4000S	8N7072	15000U
8N7055*	20	8N7095	40CS	8N7083	5000S	8N7070	20000S
8N7056*	25	8N7094	50CS	8N7082	5000U		
8N7057*	30	8N7093	75CS				

Any Above Type—Each..... 73c  
 8N7068 25000S 8N7066 40000S 8N7065 50000S  
 8N7067 30000S  
 Any Above Type—Each..... 94c  
 8N7064 75000S 8N7063 100000S Each..... 2.06

**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	1000	12,000*	60,000*
100	1250	12,500†	70,000*
150	1500	15,000	
200	2000	17,500*	

†—5 watt only. \*—10 watt only.

**STANDARD ADJUSTABLE**

**Type 10AD—10 W. 1 1/4" x 13/32"**  
 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 58c  
 Each.....

**Type 5KT—5 W. 1 1/4" x 13/32"**

No.	Ohms	Each
7N7513	10 to 5,000	30c
7N7514	7,500 to 10,000	31c
7N7515	12,500 to 15,000	35c
7N7516	20,000	39c
7N7517	25,000	49c
7N7518	30,000	53c
7N7519	40,000	60c
7N7520	10 to 10M Ohms	34c
7N7521	12M, 15M Ohms	38c
7N7522	17,500 & 20,000	42c
7N7523	25,000	49c
7N7524	30,000	53c
7N7525	40,000	64c
7N7526	50,000	71c
7N7527	60,000	88c
7N7527	70,000	99c

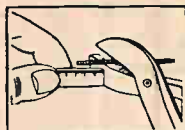
**NON-INDUCTIVE FIXED**

**Type 10NIT—10 W. 1 1/4" x 13/32"**

Ohms	Ohms	Ohms	Ohms
10	70	500	2500
20	80	750	3000
30	90	1000	3500
40	100	1250	4000
50	250	1500	5000
60	400	2000	7500

Stock No. Ohms Each  
 7N7528 10 to 1000 46c  
 7N7529 1250 to 2000 54c  
 7N7530 2500 to 4000 58c  
 7N7531 5000 61c  
 7N7532 7500 69c  
 7N7533 10,000 88c

**MALLORY YARD-OHM RESISTANCE KITS**



Real solution to the odd-value resistor problem. Ideal for meter shunts, experimental lab., 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 braid and 24 spiral wire leads. Available in eight resistance values. Dissipation—all types; 1/2 watt per inch. With instructions.

No.	Ohms	Cap. in Per In. Amps.	Any Type	No.	Ohms	Cap. in Per In. Amps.	Any Type
7N4407	1	.707	44c	7N4411	50	.100	44c
7N4408	5	.315					
7N4409	10	.223					
7N4410	25	.141					
7N4410	25	.141					

**CONTINENTAL "NOBLELOY" X-TYPE RESISTORS**

New 1-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 tube, then hermetically sealed by a layer of vitreous enamel. Ceramic tubes are hollow and allow greater area for heat dissipation. Excellent resistance stability and negligible noise characteristics. Will withstand overloads of 200% and temperatures of 400°F. without change in value upon return to room temperature. Critical tolerance within 1%. Size 9/32"x1". 1 1/2" tinned copper leads.



Ohms	Ohms	Ohms	Ohms	Ohms
1	2950	9950	85M	500M
10	3500	10,000	90M	600M
25	4000	13,500	100M	750M
50	4450	15M	150M	800M
100	4950	20M	200M	900M
200	5000	25M	240M	1.0 Meg.
400	5500	30M	250M	1.5 Meg.
500	5950	40M	300M	2.0 Meg.
1000	7450	50M	400M	2.5 Meg.
1450	8500	60M	450M	3.0 Meg.
2000	8950	75M	490M	

7N7105—Specify Resistance. Each..... 59c

**OHMITE MODEL TRAIN CONTROL RHEOSTATS**



**MT-16 FOR 6-V "HO" GAUGE**

Single knob starting, stopping, speed and reversal. Controls one "HO" gauge locomotive pulling normal load. Single hole mounting. 2-5/16" dia. x 1 1/8" deep. 8N8388—Each..... 4.41

**MT-40 FOR 12-V "HO" GAUGE**

Same smooth, perfect control as MT-16, except designed to control the new 12-volt "HO" locomotive pulling normal load. 2-5/16" diameter x 1 3/8" deep. 8N8359—Each..... 3.46

**MT-14 FOR "O" GAUGE**

Will control one "O" gauge locomotive pulling normal load. Has an off-position for stopping trains and operating sequence reversers. 2-5/16" x 1 3/8" deep. 8N8389—Each..... 3.67



# MALLORY VOLUME CONTROLS

## MALLORY RADIO SERVICE ENCYCLOPEDIA—6TH EDITION



Only complete servicing reference on all pre-war and post-war receivers. Approximately 25% more listings than the 5th edition. Up-to-the-minute facts on correct replacement parts, volume and tone controls, capacitors, vibrators, circuit information, 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.

23N19748—552 pages. Shipping weight 4 lbs. .... 2.00

### STANDARD UNIVERSAL TAPPED CONTROLS

Standard 1 1/2" diameter controls with tap for various applications. Furnished with two nuts, washer, ground terminal and knob adapter. \*No provision for use with switch; if switch is desired use TRP624. †Has slotted shaft for auto sets. ‡Special taper for fader service. Others are taper 1. Less switches. Shpg. wt. 5 oz.



No.	Type	Ohms	Tap'd	No.	Type	Ohms	Tapped
8N6543	TRP601	40000	8000	8N6588	TRP615	3 Meg.	900000
8N6544	TRP602	60000	4000	8N6589	TRP616	500000	60000
8N6545	TRP603	250000	110000	8N6590	TRP617	60000	12000
8N6546	TRP604	350000	20000	8N6591	TRP618	2 Meg.	250000
8N6547	TRP605	350000	7000	8N6592	TRP619	500000	100000
8N6577	TRP606	500000	100000				250000
8N6578	TRP607	500000	225000	8N6593	TRP620	2 Meg.	900000
8N6579	TRP608	1 Meg.	200000	8N6594*	TRP621	2 1/4 Meg.	250000
8N6580	TRP609†	1 Meg.	500000				500000
8N6581	TRP610	1 Meg.	30000	8N6595	TRP622	44000	7000
8N6583	TRP612	2 Meg.	15000	8N6596	TRP623	250000	50000
8N6586	TRP613	2 Meg.	400000	8N6576	TRP624	2 1/4 Meg.	250000
8N6587	TRP614‡	350000	70000				500000

Each—Shipping weight 1/2 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

No.	Type	Res. in Ohms		Taper	
		Front	Rear	Front	Rear
8N6684	CE	2000	5000	I	I
8N6685	GE	10000	5000	VII	IV
8N6685	GG	10000	10000	VII	IV

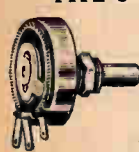
#### Carbon Controls

No.	Type	Front	Rear	Front	Rear
8N6686	GK	10000	50000	I	IV
8N6689	LL	100000	100000	I	I
8N6687	LM	100000	250000	I	I
8N6749	MM	250000	250000	I	I
8N6750	NN	250000	500000	I	I
8N6689	NN	500000	500000	I	I

Each—Shipping weight 1 lb. .... 1.82

### COMPACT RHEOSTATS AND POTENTIOMETERS

#### TYPE C—2 WATTS



Wire Wound. Controls. Extremely compact design makes it ideal for use where space is limited. Contact arm is grounded to the shaft. Overall diameter of unit is 1 1/2". Shaft is 1/4" diameter and 3/8" long.

#### TYPE M—4 WATTS



Wire Wound. Conservatively rated at 4 watts. Fully enclosed. 1 1/2" diam. mount in 1/8" hole. Shaft 1/4" diam., 3/8" long. With dust cover.

#### RHEOSTATS

No.	Ohms	No.	Ohms
8N6197	6	8N6201	30
8N6198	10	8N6202	40
8N6199	15	8N6203	50
8N6200	20	8N6204	100

Each ..... 59c

No.	Ohms	No.	Ohms
8N6480	1	8N6486	20
8N6481	2	8N6487	25
8N6482	3	8N6173	40
8N6483	6	8N6174	50
8N6484	10	8N6175	60
8N6485	15	8N6176	75

Each ..... 59c

#### POTENTIOMETERS

No.	Ohms	No.	Ohms
8N6205	6	8N6210	40
8N6206	10	8N6211	50
8N6207	15	8N6212	100
8N6208	20	8N6213	200
8N6209	30	8N6214	400

Each ..... 73c

#### POTENTIOMETERS

No.	Ohms	No.	Ohms
8N6503	20	8N6496	200
8N6492	50	8N6497	400
8N6495	100		

Each ..... 73c

No.	Ohms	No.	Ohms
8N6498	1000	8N6499	2000
8N6500	3000	8N6501	5000

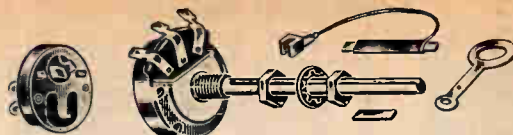
Each ..... 82c

No.	Ohms	No.	Ohms
8N6502	10000	8N6177	15000
8N6178	20000	8N6179	25000

Each ..... 97c

8N6180	50000	8N6181	70000
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Each ..... 1.15



### UNIVERSAL VOLUME CONTROLS

The Mallory-Yaxley Volume Controls listed on these pages can be used to service over 90% of all the radio receivers now in use. With comparatively few units, the serviceman is enabled to meet practically all service requirements. Mallory-Yaxley Controls feature: minimum bias adjustment on all bias controls; 3" shafts that can be shortened by notching and breaking off; complete shielding; all furnished with knob adapter, and mounting hardware. Approved switch (listed below) can be added to any control.

### UNIVERSAL REPLACEMENT CONTROLS

All with two mounting nuts, washer, ground terminal and knob adapter. Wire wound units have adjustable bias feature (exclusive Mallory-Yaxley); carbon element units with adjustable bias resistor where required.

#### Wire Wound Controls

No.	Part	Ohms	Taper	No.	Part	Ohms	Taper
8N6660	Q	2	4	8N6675	H*	15000	2
8N6661	R	6	4	8N6713	H7*	15000	7
8N6662	S	10	4	8N6741	A20MP*	20000	4
8N6663	T	20	4	Carbon Controls			
8N6664	U	30	4				
8N6665	V	60	4	8N6738	Y5MP	5000	4
8N6666	W	100	4	8N6710	F12*	7500	1
8N6667	X	200	4	8N6740	Y10MP	10000	4
8N6732	A400P	400	4	8N6714	H12*	15000	1
8N6668	A	500	1	8N6715	Y*	20000	1
8N6733	A550P	550	4	8N6742	Y25MP	25000	4
8N6734	A1MP	1000	4	8N6676	J*	25000	1
8N6669	B	1000	1	8N6677	K*	50000	2
8N6719	UC500	1000	2	8N6716	K12	50000	1
8N6735	A2MP*	2000	4	8N6717	Z*	75000	2
8N6670	C	2000	2	8N6718	Z12	75000	1
8N6704	C12*	2000	1	8N6729	UC510*	100000	2
8N6736	A3MP*	3000	4	8N6721	UC502	150000	1
8N6671	D*	3000	2	8N6745	Y200MP	200000	4
8N6705	D7*	3000	7	8N6746	Y250MP	250000	4
8N6706	D12*	3000	1	8N6730	UC511†	250000	1
8N6737	A5MP*	5000	4	8N6728	UC509*	250000	2
8N6672	E*	5000	2	8N6722	UC503	750000	1
8N6707	E7*	5000	7	8N6723	UC504	3 Meg.	1
8N6673	F*	7500	2	8N6724	UC505	4 Meg.	1
8N6709	F7*	7500	7	8N6725	UC506	5 Meg.	1
8N6739	A10MP*	10000	4	8N6726	UC507	5 Meg.	2
8N6674	G*	10000	2	8N6727	UC508	9 Meg.	1
8N6711	G7*	10000	7				

\*—Has adjustable bias feature. Wire wound units have adjustable plate; carbon element controls have external adjustable resistor.

†—Has slotted shaft for auto sets. Supplied Less Switch.

Each ..... 73c

### EXPLANATION OF MALLORY VOLUME CONTROL TAPERS

- No. (1) For audio or antenna shunt circuits.
- No. (2) For series circuits such as cathode voltage controls.
- No. (3) For antenna shunt and "C" bias circuits.
- No. (4) Linear taper; for voltage divider circuits.
- No. (4A) Modified linear taper, similar to No. 4.
- No. (7) Wire wound element. For antenna and "C" bias.

### CONTROL SWITCHES



Attachable switches to fit all universal, tapped, and dual controls listed 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

### MOUNTING BRACKETS



For use where control mounts off chassis. Plated metal. Adjustable mounting centers. 8N6297—Type RB-248—Mounting centers 1 1/2" to 2 3/8". 8N6298—Type RB-249—Mounting centers 2 3/8" to 2 1/2". Either Type, Each ..... 15c

### CONTROL HEX NUTS

For 3/8" bushings

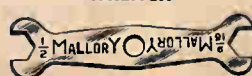
No.	For Panels	Each
8N6384	1/8"	.12
8N6386	1/4"	.15
8N6385	3/8"	.18

### EXTENSION SHAFTS



Type A—Length 4". 8N6561—1/2" diam. 1/2" flat. 8N6562—1/2" diam. 3/8" flat. 8N6563—3/8" diam. 1/2" flat. Any Size, Each ..... 24c  
Type B—2" long, 1/4" diameter with 3/8" slot. Enclosed in tight fitting tube. 8N6559—Each ..... 26c

### VOLUME CONTROL WRENCH



For standard volume control nuts. 8N6387—No. 178—Each ..... 15c



**MALLORY "UM" AND "TM" JUNIOR CONTROLS**



Ultra-compact controls featuring noiseless composition elements; attachable switches; plug-in type shafts. Both UM and TM types have slots which will take any one of the special shafts listed below. The TM types are similar to the UM but are provided with a tap as shown. TM type designed for use in tone compensating circuits. All are 1/2" thick, 1 1/8" diameter. Complete with SS1 shaft.

**MALLORY "UM" TYPE JUNIOR CONTROLS**

No.	Type	Ohms & Taper	No.	Type	Ohms & Taper
8N6926	UM114	5M(4A)	8N6940	UM140	100M(1)
8N6927	UM118	10M(1)	8N6941	UM141	100M(2)
8N6928	UM119	10M(2)	8N6942	UM142	100M(4)
8N6929	UM120	10M(4)	8N6943	UM144	150M(1)
8N6930	UM121	15M(1)	8N6944	UM147	250M(1)
8N6931	UM122	15M(2)	8N6945	UM149	250M(4)
8N6932	UM124	20M(1)	8N6946	UM151	350M(1)
8N6933	UM128	25M(2)	8N6947	UM154	500M(1)
8N6934	UM129	25M(4)	8N6948	UM156	500M(4)
8N6935	UM133	50M(1)	8N6949	UM158	750M(1)
8N6936	UM134	50M(2)	8N6950	UM161	1 Meg. (1)
8N6937	UM135	50M(4)	8N6951	UM163	2 Meg. (1)
8N6938	UM137	75M(1)	8N6952	UM165	3 Meg. (1)
8N6939	UM138	75M(2)			

Complete with SS1 Shaft. Each..... **73c**

**MALLORY "TM" TYPE TAPPED CONTROLS**

No.	Type	Ohms	Tapped	No.	Type	Ohms	Tapped
8N6953	TM220	250M	50M	8N6959	TM240	1 Meg.	200M
8N6954	TM221	250M	110M	8N7006	TM241	1 Meg.	200M
8N7013	TM222	250M	110M	8N7007	TM242	1 Meg.	450M
8N7014	TM223	500M	60M	8N7008	TM243	1 Meg.	450M
8N7015	TM224	500M	100M	8N7008	TM244	1 1/2 Meg.	200M
8N6955	TM225	350M	70M	8N6961	TM245	2 Meg.	5M
8N7016	TM226	500M	15M	8N6962	TM246	2 Meg.	15M
8N7017	TM227	500M	100M	8N6963	TM247	2 Meg.	60M
8N6956	TM228	500M	5M	8N6964	TM248	2 Meg.	250M
8N6957	TM230	500M	150M	8N6965	TM249	2 Meg.	600M
8N6958	TM231	500M	225M	8N7009	TM250	2 Meg.	125M
8N7018	TM232	500M	225M	8N6966	TM251	2 Meg.	900M
8N7019	TM233	500M	60M	8N7010	TM252	2 Meg.	900M
8N7020	TM234	1 Meg.	65M	8N7011	TM254	2 Meg.	400M
8N7021	TM236	1 Meg.	125M	8N6967	TM257	3 Meg.	900M
8N7022	TM238	1 Meg.	300M	8N7012	TM259	2 Meg.	900M
8N6964	TM239	1 Meg.	300M				

Complete with SS1 shaft. Each..... **1.09**

**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" long. ....38c
- 8N6992—SS18. For Belmont.18c
- 8N6993—SS19. ....38c
- 8N6994—SS20. ....38c
- 8N6995—SS21. Motorola Model 17D. ....26c
- 8N6996—SS22. ....18c
- 8N6997—SS23. ....18c
- 8N6998—SS24. ....18c
- 8N6999—SS25. Replaces standard knurled shafts from 3/4" to 4" long. Each. ....18c
- 8N6809—SS26. Zenith sets.18c
- 8N6910—SS27. Philco sets.18c
- 8N6820—SS28. Motorola sets.38c
- 8N6821—SS29. Motorola sets.18c
- 8N6822—SS30. Motorola sets.18c

- 8N6826—SS31. Philco sets.18c
- 8N6827—SS32. Philco sets.18c
- 8N6973—SS1. Replaces any 1/4" round shaft or 3/8" or 1/2" flattened shaft up to 4" long.18c
- 8N6974—SS2. ....18c
- 8N6975—SS3. Replaces any 3/4" slotted shaft up to 2" long.26c
- 8N6976—SS4. ....18c
- 8N6977—SS5. ....18c
- 8N6978—SS6. RCA, Hudson H6. ....18c
- 8N6982—SS10. ....18c
- 8N6983—SS11. Replaces any 3/8" slotted shaft 2 to 4" long.26c
- 8N6984—SS12. ....18c
- 8N6986—SS14. Replaces any 1/8" slotted shaft to 2" long.26c
- 8N6987—SS15. Replaces any 3/8" slotted shaft 4 to 6" long.26c
- 8N6988—SS16. ....18c

**MALLORY 1485 CONTROL DEAL**

Have readily available volume control replacements for 90% of your service needs. Contains 15 controls including MR-48, MR-53, MR-54, MR-44, MR-18, MR-33, MR-39, MR-41, and 9 switches including M-26, M-27, M-28. Sturdily constructed metal cabinet has 15 compartments for controls, roomy drawer for AC switches and built-in rack for Mallory Service Encyclopedia (not supplied). You pay for the merchandise only. You pay nothing for the cabinet. 8N7023—Shipping wt. 15 lbs..... **14.55**



**MALLORY MIDGETROL DEAL**

The easy way to get started with the revolutionary New Mallory Midgetrol line. You get 15 of the fastest-moving controls and 9 popular AC switches at the regular price... then without any extra charge you get a handsome metal cabinet, four extension shafts, five extra U-clips, five extra spring clips and two idler pulleys. Kit contains four U-48, three U-53, two U-50, two U-44, one U-18, one U-55, one U-39 and one U-41 volume controls, and nine of the US-26 switches. Cabinet and accessories no extra cost. 8N7024—Shipping weight 15 lbs... **14.55**



**MALLORY QUALITY VOLUME CONTROLS**



**NEW MALLORY MIDGETROLS**

Small diameter (1 1/8"), special resistance element. New type contact for smooth, 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	5M	(4)	8N7466	U-41	100M	(4)
8N7452	U-18	10M	(1)	8N7467	U-42	150M	(1)
8N7453	U-19	10M	(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	500M	(1)
8N7458	U-28	25M	(2)	8N7473	U-50	500M	(4)
8N7459	U-29	25M	(4)	8N7474	U-51	750M	(1)
8N7460	U-33	50M	(1)	8N7475	U-53	1 Meg.	(1)
8N7461	U-34	50M	(2)	8N7476	U-54	1 Meg.	(4)
8N7462	U-35	50M	(4)	8N7477	U-55	2 Meg.	(1)
8N7463	U-36	75M	(1)	8N7478	U-57	3 Meg.	(1)
8N7464	U-39	100M	(1)	8N7479	U-65	5 Meg.	(1)

Any Above .....73c

No.	Type	Ohms	Tapped	No.	Type	Ohms	Tapped
8N7480	UT-420	250M	50M	8N7485	UT-450	2 Meg.	125M
8N7481	UT-425	350M	70M	8N7486	UT-443	2 Meg.	250M
8N7482	UT-527	500M	100M	8N7487	UT-454	2 Meg.	400M
8N7483	UT-431	500M	225M	8N7488	UT-451	2 Meg.	900M
8N7484	UT-443	1 Meg.	450M				

Any Above .....1.09

**AC ON-OFF ATTACHABLE SWITCHES FOR MIDGETROLS**

- 8N7489 SPST Type US-26 .35 8N7491 Type US-27 .44
- 8N7490 SPST Type US-26T .44 8N7492 Type US-28 .44
- 8N7493 4PST Shorting US-23 .44 \*Has dummy terminal
- 8N7494—Extension Shaft Type UE-50. ....15c
- 8N7495—Idler Pulley Type UP-10. ....12c

**MRT MIDGET CONTROLS—SINGLE TAP**

Fixed shaft. Easy-to-cut channel shaft and insert fits all type knobs. Nuts, washer and ground terminal furnished. 1 1/8" dia. Switches below attach easily.



No.	Type	Ohms	Tapped	No.	Type	Ohms	Tapped
8N6762	MRT420	250M	50M	8N6772	MRT443	1 Meg.	450M
8N6763	MRT425	350M	70M	8N6773	MRT440	1 Meg.	500M
8N6764	MRT428	500M	5M	8N6774	MPT465	2 Meg.	5M
8N6765	MRT426	500M	15M	8N6775	MFT446	2 Meg.	15M
8N6766	MRT427	500M	100M	8N6776	MRT447	2 Meg.	60M
8N6767	MRT430	500M	150M	8N6777	MPT450	2 Meg.	125M
8N6768	MRT431	500M	225M	8N6778	MRT448	2 Meg.	250M
8N6769	MRT436	1 Meg.	125M	8N6779	MPT454	2 Meg.	400M
8N6770	MRT440	1 Meg.	200M	8N6780	MRT449	2 Meg.	600M
8N6771	MRT439	1 Meg.	300M	8N6781	MRT451	2 Meg.	900M

Each .....1.09

**MALLORY ATTACHABLE SWITCHES**

- Fit "UM," "TM," "MR" and "MRT" Junior controls on this page.
- 8N6968—Single Pole, Single Throw. Each. ....35c
- 8N6969—Double Pole, Single Throw. Each. ....44c
- 8N6970—Single Pole, Double Throw. Each. ....44c
- 8N6972—Four Pole, Single Throw. (Shorting Type). ....44c

**MALLORY TYPE "MR" JUNIOR CONTROLS**

Ultra compact controls are similar to the types UM and TM junior controls listed at left except that they feature standard shafts, 3" long, milled the entire length and furnished with knob adapters (for spring type knobs). All are rated conservatively at 1/2 watt.

No.	Type	Ohms	No.	Type	Ohms
8N6900	MR14	5M(4A)	8N6913	MR37	75M(2)
8N6901	MR18	10M(1)	8N6914	MR39	100M(1)
8N6902	MR19	10M(2)	8N6915	MR40	100M(2)
8N6903	MR20	10M(4)	8N6916	MR41	100M(4)
8N6904	MR21	15M(1)	8N6917	MR42	150M(1)
8N6905	MR22	15M(2)	8N6918	MR44	250M(1)
8N6906	MR24	20M(1)	8N6919	MR45	250M(2)
8N6907	MR28	25M(2)	8N6920	MR48	500M(1)
8N6908	MR29	25M(4)	8N6921	MR50	500M(4)
8N6909	MR33	50M(1)	8N6922	MR51	750M(1)
8N6910	MR34	50M(2)	8N6923	MR53	1 Meg. (1)
8N6911	MR35	50M(4)	8N6924	MR55	2 Meg. (1)
8N6912	MR36	75M(1)	8N6925	MR57	3 Meg. (1)

Each .....73c

**JUNIOR CONTROLS WITH FIXED KNURLED SHAFTS**

Similar 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	MK400	250M(1)	8N6639	MK402	1 Meg. (1)
8N6638	MK401	500M(1)	8N6640	MK403	2 Meg. (1)

Each .....73c



# IRC REPLACEMENT VOLUME CONTROLS

## THE "CENTURY" LINE— Universal Type D Controls



Compact all-purpose controls for miscellaneous service needs. Each D control accommodates any of the Tap-in Shafts shown in adjoining column which greatly increases their utility. Shaft flats may be located in any position. A Double Flatted A shaft is included with each D Control, which accommodates popular push on knobs requiring either  $\frac{3}{32}$ " or  $\frac{3}{16}$ " flats and all set screw knobs without filing or use of inserts. Controls measure  $1\frac{1}{8}$ " dia. x  $\frac{1}{4}$ " thick.

No.	Type	Use	Ohms	No.	Type	Use	Ohms
8N7706	D11-103	A	500	8N7728	D14-123*	D	50000
8N7707	D11-108	A	1000	8N7729	D13-125	C	75000
8N7708	D11-110	A	2000	8N7730	D14-125*	D	75000
8N7724	D11-112	A	3000	8N7716	D11-128†	A	100000
8N7709	D11-113	A	4000	8N7785	D13-128†	C	100000
8N7779	D11-114	A	5000	8N7717	D11-129	A	200000
8N7710	D13-114	C	5000	8N7718	D14-129*	D	200000
8N7850	D14-114*	D	5000	8N7731	D11-130	A	250000
8N7725	D11-115	A	7500	8N7786	D13-130†	C	250000
8N7780	D11-116†	A	10000	8N7719	D14-130*	D	250000
8N7711	D13-116	C	10000	8N7787	D13-132	C	350000
8N7781	D14-116†	D	10000	8N7732	D11-133†	A	500000
8N7782	D16-116*	F	10000	8N7788	D13-133†	C	500000
8N7726	D14-118*	D	15000	8N7720	D14-133	D	500000
8N7783	D16-118*	F	15000	8N7852	D11-137	A	1.0 Meg.
8N7712	D16-119†	F	20000	8N7789	D13-137†	C	1.0 Meg.
8N7713	D11-120	A	25000	8N7705	D14-137	D	1.0 Meg.
8N7727	D14-120*	D	25000	8N7790	D13-139†	C	2.0 Meg.
8N7714	D16-120	F	25000	8N7733	D13-140	C	3.0 Meg.
8N7715	D11-123†	A	50000	8N7721	D11-141	A	5.0 Meg.
8N7784	D13-123†	C	50000	8N7723	D11-143	A	10.0 Meg.

Each..... **73c**

### D TAPPED CONTROLS

Similar in construction to the above single controls but with tap for replacement of original control having this feature. Type A Tap-in Shaft included with each control.

No.	Type	Use	Tap	Ohms
8N7863	D18-117X	H	3M	13M
8N7864	D18-122X	H	6M	30M
			7M	
8N7865	D18-123XX	Sp	14M	44M
8N7836	D13-130X*	Sp	125M	250M
8N7866	D17-130X	Sp	25M	250M
8N7911	D18-130X	H	60M	250M
			60M	
8N7867	D18-130XX	Sp	120M	250M
8N7868	D17-132X	Sp	35M	350M
8N7922	D18-132X	H	75M	350M
8N7933	D13-133X*	H	125M	500M
8N7869	D17-133X	Sp	25M	500M
8N7843	D18-133X	Sp	50M	500M
			100M	
8N7870	D18-133XX	Sp	200M	500M
8N7871	D19-133X	Sp	25M	500M
8N7854	D13-137X*	H	250M	1.0 Meg.
8N7853	D17-137X	Sp	35M	1.0 Meg.
			50M	
8N7872	D17-137XX	Sp	100M	1.0 Meg.
8N7735	D18-137X	Sp	100M	1.0 Meg.
			250M	
8N7873	D18-137XX	Sp	500M	1.0 Meg.
8N7844	D19-137X	Sp	500M	1.0 Meg.
8N7854	DVC-539X†	Sp	500M	1.0 Meg.
8N7795	D13-139X†	H	500M	2.0 Meg.
			500M	
8N7874	D13-139XX	Sp	100M	2.0 Meg.
8N7875	D15-139X	Sp	5M	2.0 Meg.
8N7855	D17-139X	Sp	150M	2.0 Meg.
8N7734	D18-139X	Sp	1.0 Meg.	2.0 Meg.
			250M	
8N7856	D18-139XX	Sp	500M	2.0 Meg.
8N7857	D19-139X	Sp	50M	2.0 Meg.

Any type above, less switch.....Each **1.09**

†Special control for use as a fader.

‡Included in control cabinet.

\*Includes 270 ohm  $\frac{1}{2}$  watt resistor.



**CLUTCH TYPE DC CONTROLS**  
Friction clutch drive-arm with special Tap-in shaft for use where either slotted or tongued type shaft required. Switches cannot be used with friction clutch control.  $1\frac{1}{8}$ " x  $\frac{1}{4}$ ".

### POPULAR DS TYPES

These sixteen controls have been the most frequently called for. Furnished with fixed shafts for convenient, easy use. Dimensions:  $1\frac{1}{8}$ " x  $\frac{1}{4}$ ". Uses '40' series switches.

No.	Type	Use	Ohms	Price
8N9108	DS11-116	A	10M	
8N9109	DS14-116*D	D	10M	
8N9114	DS14-120*D	D	25M	
8N9117	DS11-123	A	50M	Less Switch
8N9121	DS11-128	A	100M	Each
8N9122	DS13-128	C	100M	
8N9125	DS11-130	A	250M	<b>73c</b>
8N9127	DS13-133	C	500M	
8N9129	DS13-137	C	1.0 Meg.	
8N9131	DS13-139	C	2.0 Meg.	

### TAPPED CONTROLS

No.	Type	Use	Tap	Ohms
8N9145	DS13-130X SP.	125M		250M
8N7809	DS18-130X	H	60M	250M
8N9128	DS13-133X	H	125M	500M
8N9130	DS13-137X	H	250M	1.0 Meg.
8N9147	DS13-139X	H	500M	2.0 Meg.

Any type above, less switch.....Each **1.09**  
\*Includes 270 ohm  $\frac{1}{2}$  watt resistor.

### IRC SWITCHES FOR USE WITH D AND DS CONTROLS

No.	Type	IRC No.	Price
8N7796	SPST	41	35c
8N7797	DPST	42	44c
8N7798	SPDT	43	44c

### IRC CONTROL TAPER CODE

A—Uniform (Pot. or Rho.)  
C—Audio Grid or Ant. Shunt  
D—Grid Bias  
F—Ant. & Grid Bias 1 or 2 Tubes  
H—Audio Tapped for Bass Comp.  
Sp—For Special Applications

No.	Type	No.	Ohms	Each
8N7757	DC13-130	250,000		<b>1.09</b>
8N7759	DC13-133	500,000		
8N7761	DC13-137	1.0 Meg.		
8N7763	DC13-139	2.0 Meg.		

### TAPPED CONTROLS

No.	Type	No.	Tap	Ohms
8N7758	DC18-130X	50M		250M
8N7760	DC13-133X†	125M		500M
8N7762	DC13-137X	250M		1.0 Meg.
8N7764	DC13-139X	500M		2.0 Meg.

Each.....\$1.09

### DUAL CONTROLS

Here is a carefully selected group of "duals" that will speed many an important repair job! Standard No. 20 series switches can be attached. Dimensions:  $1\frac{1}{4}$ " x  $1\frac{1}{4}$ ".



No.	Type	Use	Ohms	No.	Type	Use	Ohms
8N9138	35-1620	C	*10,000	8N9142	33-3333	C	*0.5 Meg.
		D	†25,000			C	†0.5 Meg.
8N9139	61-1623	F	*10,000	8N7851	33-3737	C	*1.5 Meg.
		A	†50,000			C	†1.0 Meg.
8N9140	33-2828	C	*0.1 Meg.	8N9143	33-3939	C	*2.0 Meg.
		C	†0.1 Meg.			C	†2.0 Meg.
8N9141	33-3030	C	*0.25 Meg.			C	†2.0 Meg.
		C	†0.25 Meg.			C	†2.0 Meg.

\*Panel Control †Rear Control  
Your Cost—  
Less switch.....Each **1.82**

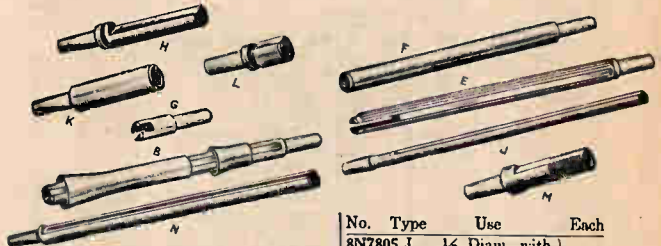
### IRC SWITCHES

FOR USE WITH S AND

### DUAL CONTROLS

Stock No.	Type	IRC No.	Price
8N9133	SPST	21	35c
8N9135	DPST	22	44c
8N9134	SPDT	23	44c

### TAP-IN SHAFTS FOR TYPE D CONTROLS



No.	Type	Use	Price
8N7805	J	$\frac{1}{8}$ " Diam. with .105" flat. For Zenith Sets.	26c
8N7799	B	For Auto Radio Controls	
8N7800	E	One Piece Split Knurled	
8N7801	F	$\frac{1}{16}$ " Dia. Full Round 3" Long	Each
8N7802	G	$\frac{1}{8}$ " Long Slotted with Axial Hole.	18c
8N7803	H	Special groove to hold corner of dial plate.	

### EXTENSION SHAFTS

These shafts attach to regular shafts, thus extending the length to any needed size. Makes it possible to use standard shafts and controls for special jobs and the mounting of controls in circuits where unit must be located at a distance from the front panel. Approximately 4 oz. shipping weight.

No.	Size	Type	Each
8N7770	4" x $\frac{1}{4}$ " dia. x 1/32" flat		441
8N7771	4" x $\frac{1}{4}$ " dia. x 3/32" flat		442
8N7772	4" x 3/16" dia. x 1/64" flat		443
8N7773	8" x $\frac{1}{4}$ " dia. x 3/32" flat for 4" of length.		444

Each **24c**

### TYPE J CONTROLS FOR SPECIAL APPLICATIONS

For a wide variety of sets with special requirements, these controls are extremely useful. Play safe, stock at least one of each.

No.	Type	Resistance	Price	No.	Type	Resistance	Price
8N7859	DJ 4	2.0 Meg./1.0 Meg.	\$2.20	8N7861	J-296	225,000/5,000 Ohms	1.82
8N7860	DJ 5	2.0 Meg./1.0 Meg.	2.20	8N9460	J-777	350,000 Ohms	1.09
8N9169	J-15	32,000 Ohms	1.09	8N9149	J-823	150,000/250,000 Ohms	1.82
8N9190	J-107	10,000/50,000 Ohms	1.82				
8N9195	J-127	3800/3800 Ohms	1.82	8N7862	J-843	350,000 Ohms	1.09

### IRC "JUNIOR" CONTROL CABINET

Hot number controls with switches and additional shafts plus a sturdy cabinet. You pay only for the merchandise.

Controls	Shafts	Switches
5—D13-133	9—type A	3—No. 41
1—D13-137	3—type E	1—No. 42
1—D13-139	1—type H	
1—D13-133X		
1—D13-137X		

8N7698—Each.....9.53



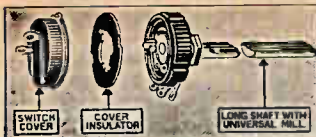
### IRC HANDY CONTROL AND PARTS CABINET

A sturdy, all-metal constructed, attractive 3 color finish. IRC Volume Control Cabinet is included FREE with a special assortment of popular sizes of Type D Controls, 5 Shafts and 6 Switches that will enable you to handle up to 80% of your Volume Control Replacements. Cabinet measures  $14\frac{1}{2}$ " x  $7\frac{3}{8}$ " x  $4\frac{1}{4}$ ". Accommodates 20 controls, has 3 handy drawers for switches, tap-in shafts and other small parts. Control assortment includes one type DC and 17 type D Volume Controls. (Sizes indicated in stock lists upper right by T.) You pay only for Controls, Shafts, Switches—Cabinet no charge. **18.17**





**CENTRALAB VOLUME CONTROLS**



**Standard Radiohms**  
Noted for their long noiseless life these famous controls employ a patented non-wearing contact arrangement. Control diameter— $1\frac{1}{8}$ "; Depth— $\frac{3}{16}$ "; Shaft length— $2\frac{1}{2}$ "; Diameter— $\frac{1}{4}$ "; Bushing diameter— $\frac{3}{8}$ ". Flat milled shaft.

Shaft length— $2\frac{1}{2}$ "; Diameter— $\frac{1}{4}$ "; Bushing diameter— $\frac{3}{8}$ ". Flat milled shaft.

CRL tapers indicated by number after resistance values.

1. Linear taper
2. Antenna shunt, C bias
3. C bias
4. Audio grid or tone control

**STANDARD RADIOHMS**

No.	CRL	Ohms	No.	CRL	Ohms
8N8876	A-100	500(1)	8N8861	A-118	50000(1)
8N8865	A-101	1000(1)	8N8875	A-119	50000(6)
8N8859	A-102	2000(1)	8N9033	A-120	75000(6)
8N8866	A-103	3000(1)	8N8840	A-121	75000(4)
8N8867	A-104	4000(1)	8N8862	A-122	100000(1)
8N8868	A-105	5000(1)	8N8880	A-123	100000(6)
8N8842	A-106	5000*	8N8697	A-124	150000(1)
8N8907	A-107	7500(1)	8N8878	A-125	200000(1)
8N8372	A-108	10000(1)	8N8694	A-126	200000(4)
8N8871	A-109	10000(3)	8N8879	A-127	250000G(6)
8N8843	A-110	10000(4)	8N8864	A-128	500000(1)
8N8858	A-111	10000*	8N8841	A-129	500000(4)
8N8873	A-112	15000(3)	8N8863	A-130	500000(6)
8N8931	A-113	15000(4)	8N8908	A-131	750000(6)
8N8877	A-114	20000(3)	8N8874	A-132	1 Meg. (6)
8N8869	A-115	25000(1)	8N8890	A-133	2 Meg. (6)
8N5032	A-116	25000(4)	8N8696	A-134	3 Meg. (6)
8N8860	A-117	25000(3)			

\* Antenna Shunt  
Each ..... 73c

**Tapped Radiohms (For Tone Compensation)**

8N8891—AT-135	250,000 ohms(6)	8N8882—AT-137	1 Megohm(6)
8N8881—AT-136	500,000 ohms(6)	8N8909—AT-138	2 Megohms(6)

Each ..... 1.09

**Wire Wound Radiohms**

8N8959 V-104	6	8N8683 V-123	200	8N8687 V-131	2000
8N8961 V-108	10	8N8684 V-126	400	8N8765 V-133	3000
8N8681 V-116	50	8N8685 V-127	500	8N8804 V-135	5000
8N8682 V-121	100	8N8686 V-129	1000	8N8766 V-137	10000

Each (All linear taper) ..... 73c

**Twin Replacement Radiohms**

No.	CRL	Front Ohms	Rear Ohms	Each
8N8912	C-100	10000	25000	1.82
8N8913	C-101	10000	50000	
8N8758	C-102	100000	100000	
8N8768	C-103	250000	250000	
8N8787	C-104	500000	500000	

**Switch Coverplates for Standard Radiohms**

8N8665	SPST	35c	8N8669	4 Point	44c
8N8666	SPDT	44c	8N8670	*SPDT	44c
8N8660	DPST	44c	8N8661	†SPST	44c

\* Open st clockwise position. † With dummy lug.

**CENTRALAB MIDGET RADIOHMS**



Small diameter controls for use in auto or midget radios. Molded bakelite cases. With insulated terminals. Depth, less switch  $3\frac{1}{2}$ ".  $2\frac{1}{4}$ " shaft milled entire length. Separate switches easy to install. Same taper symbols as standard Radiohms. Less switch.

No.	CRL	Ohms	No.	CRL	Ohms
8N8187	N106	5000(1)	8N8219	N115	50000(6)
8N8190	N107	10000(1)	8N8220	N116	100000(1)
8N8188	N100	10000(3)	8N8272	N117	100000(6)
8N8189	N108	10000(4)	8N8192	N102	250000(6)
8N8278	N109	10000*	8N8273	N118	500000(1)
8N8279	N110	15000(3)	8N8193	N103	500000(6)
8N8280	N111	15000(4)	8N8194	N104	1 Meg. (6)
8N8281	N112	20000(3)	8N8169	N155	2 Meg. (6)
8N8217	N113	25000(1)	8N8166	N177	5 Meg. (1)
8N8191	N101	25000(3)	8N8170	N178	10 Meg. (1)
8N8218	N114	50000(1)			

\* Antenna Shunt.  
(Less switch) Each ..... 73c

**Tapped Midget Radiohms**

Tapped for tone compensation.

No.	CRL	Ohms
8N8274	NT119	250000(6)
8N8275	NT120	500000(6)
8N8276	NT121	1 Meg. (6)
8N8277	NT122	2 Meg. (6)

Each ..... 1.09

**Midget Switch Plates**

No.	Type	Each
8N8195	SPST	.35
8N8196	SPDT	.44
8N8197	DPST	.44
8N8198	4 point	.44
8N8199	*SPST	.44

\* With dummy lug.

**CRL SPLIT KNURL MIDGET RADIOHMS**



For 1938-40-41 radios using split-knurl shafts where the knobs will not fit any other type of shaft. Shafts  $2\frac{1}{8}$ " long.

No.	CRL	Ohms	Each	No.	CRL	Ohms	Each
8N8285	NK-139	250M	73c	8N8289	NK-143	500M*	1.09
8N8286	NK-140	500M		8N8291	NK-144	1 Meg.*	
8N8287	NK-141	1 Meg.					
8N8288	NK-142	2 Meg.					

\* Tapped controls.

**VOLUME CONTROLS—T and L PADS**

**IRC TYPE "W"**

**WIRE WOUND CONTROLS**



Diameter  $1\frac{1}{4}$ ". Rated 2 watts.  $3\frac{1}{2}$ " shaft. Less switch, but switch covers listed below can be easily added. Uniform taper. Ideal for use where space is limited. Shield dust cover supplied.

Stock No.	IRC No.	Ohms	Stock No.	IRC No.	Ohms	Stock No.	IRC No.	Ohms
8N7810	W-6	6	8N7818	W-50	50	8N7826	W-750	750
8N7811	W-8	8	8N7819	W-60	60	8N7827	W-1000	1000
8N7812	W-10	10	8N7820	W-75	75	8N7828	W-2000	2000
8N7813	W-15	15	8N7821	W-100	100	8N7829	W-3000	3000
8N7814	W-20	20	8N7822	W-200	200	8N7830	W-4000	4000
8N7815	W-25	25	8N7823	W-300	300	8N7831	W-5000	5000
8N7816	W-30	30	8N7824	W-400	400	8N7832	W-7500	7500
8N7817	W-40	40	8N7825	W-500	500	8N7833	W-10000	10000

Each ..... 73c

**SWITCHES FOR "W" CONTROLS**

SPST	DPST	SPDT
C7834—Ea..... 35c	C7835—Ea..... 44c	C7836—Ea..... 44c

**MALLORY "T" & "L" PADS**



"L" Pads	No.	Ohms Imp.	"T" Pads
8N6356	6		8N6362
8N6355	8		8N6363
8N6357	15		8N6364
8N6358	50		8N6365
8N6359	200		8N6366
8N6381	250		8N6382
8N6360	500		8N6367
8N6361	2000		8N6368

For controlling level of low imp. audio circuits, mikes or phono, etc. With knob, dial and plate.

"L" Pads: Any Type Above..... 2.20  
"T" Pads: Any Type Above..... 2.50

**CENTRALAB FADERS**



**Straight Fader**

For use with high impedance input devices, xtal pickups, mikes, etc. Provide smooth, quiet fading from one source to another. Each tapped at center.



Stock No.	Resistance	Each Side c.t.	Your Cost
8N9004	500M		1.18
8N9005	1 Meg.		

**Gain Control**

Like above but without center tap.

No.	Resistance	Each
8N9000	250M	1.03
8N9001	500M	
8N9002	1 Meg.	
8N9003	2 Meg.	

**"Delta-T" Pad**

Dual control maintaining constant impedance to both sides. For sound amplifiers, recorders, etc.

No.	Impedance	Each
8N9006	50 ohms	2.06
8N9007	200 ohms	
8N9008	500 ohms	

**CLAROSTAT 10-WATT OUTPUT ATTENUATORS**

Type C1B: Compact constant impedance attenuators that will dissipate 10 watts in any position. Ideal for individual speaker controls. Linear attenuation in 3 db steps to 30 db final step to infinity. Units are 2" dia.,  $2\frac{3}{4}$ " long. Mount in single hole. Bushing  $\frac{3}{8}$ "; shaft 1" long. Supplied with dial plate and knob. Shpg. wt. 1 lb.



No.	Ohms	No.	Ohms	No.	Ohms	Any Type, Each
8N7837	8	8N7839	50	8N7841	250	6.37
8N7838	15	8N7840	200	8N7842	500	

**HOWARD W. SAMS' RADIO INDUSTRY RED BOOK**



Replacement Parts Buyers' Guide—single authoritative volume gives reliable data on all replacement parts for thousands of popular radio receivers. Lists all nine major receiver components in one complete, convenient source. Covers approximately 17,000 receiver models from 1938 to 1948, with 17 leading parts manufacturers represented. Saves time and wasteful hunting—all data in quick, easy-to-find, easy-to-use form—fully indexed for reference.

No need to load your work bench with dozens of incomplete publications—Howard W. Sams' Radio Industry Red Book gives you more information than all other works now available. Full data plus servicing notes. Size:  $8\frac{1}{2}$ "x11".

23N20270—Approx. 440 pages. Postpaid in U.S.A..... 3.95



# SOLAR CONDENSERS AND FILTERS



## HI-TEMP PAPER TUBULARS

New plastic cased paper condensers. Sealed tight against moisture, will resist heat up to 100° C. Long life and small size.

400 WVDC

No.	Mfd.	Each
SN2720	.01	.15
SN2721	.02	.15
SN2722	.05	.18
SN2723	.1	.21
SN2724	.2	.24
SN2725	.25	.26
SN2726	.5	.35
SN2727*	1.0	.53

ST6—600 WVDC

SN2728	.00025	.15
SN2729	.0005	.15
SN2730	.001	.15
SN2731	.002	.19
SN2732	.003	.15
SN2733	.005	.15
SN2734	.01	.18
SN2735	.02	.18
SN2738	.05	.24
SN2740	.1	.26
SN2741	.2	.32
SN2742	.25	.32
SN2743*	.5	.47
SN2744*	1.0	.73

ST6—1000 WVDC

SN2745	.01	.29
SN2746	.02	.29
SN2747	.05	.35
SN2748	.1	.44

STM-30—3000 WVDC

SN2750	.0005	.56
SN2751	.001	.56
SN2752	.005	.59
SN2753	.01	.62
SN2754	.02	.65

STM-60—6000 WVDC

SN2755	.0005	.65
SN2756	.001	.65
SN2757	.005	.68

\*Wax filled and impregnated Kraft.

## "JUMBO" ELIM-O-STAT

For use with radios or appliances. Standard design capacitive-inductive filter replaces both old Jumbo and Type RN filters. Has new rating of 5 amps. max., 125 volts AC-DC.

5N2827—Jumbo..... 4.69

## ELIM-O-STAT FILTERS FOR FLUORESCENT LAMPS

For fixtures in laboratories, radio salesrooms, etc. where sensitive receivers are used, or where station signal strengths are too weak. Effective over wide range of frequencies used for radio and TV. Requires one unit per fixture. Installed in series with line leads within fixture at point where power leads enter. 125 V AC. Max. 2.7 amps. Handles up to six 40-watt tubes. UL approved.

5N2829—Type EF-100..... 2.23

## SINGLE UNIT ELIM-O-STAT FILTERS

Similar to Type EF-100 above, but only about 80% as effective. Compact size, low cost. Only one filter needed for any fixture or fluorescent lamp. To install simply connect across line leads entering fixture. Two types available, EF-101 and EF-102. EF-101 is bathtub mounting type, EF-102 is strap mounting type. Both are sealed in metal containers. Rated Voltage: 125 Volts AC. Underwriter's Approved.

5N2830—Type EF-101..... 73c

5N2831—Type EF-102..... 71c



## TYPE D DRY ELECTROLYTICS

High quality, metal cased units. Insulated can unit with flexible leads. Provides excellent protection against humidity. Mounts in 7/8" hole.

Cat. No.	Mfd.	V. DC	Size	Each
SN2819	8	450	1x2 1/2	1.03
SN2809	12	450	1 1/2 x 4 3/8	1.26
SN2820	16	450	1x3 1/2	1.41



## TYPE DY "TWIST PRONG" MOUNTING

Type "DY Twist Prong" is a standard metal cased unit. Hermetically sealed base assures long life, proper venting and great rigidity. Ideal for many types of service. Light in weight, compact, and provided with one bakelite and one metal mounting plate. They save assembly space and time. Terminal codes clearly stamped on case.

No.	Mfd.	Volts	Size	Ea.
SN2890	3000	10	1 3/4 x 3	2.65
SN2891	1000	15	1 x 3	1.91
SN2892	2000	15	1 3/4 x 3	2.76
SN2893	25	25	1 x 2	.62
SN2894	100	25	1 x 2	.85
SN2895	500	25	1 x 3	1.44
SN2896	1000	25	1 3/4 x 3	2.09
SN2897	5000	50	1 3/4 x 3	2.09
SN2898	20	150	1 x 2	.71
SN2899	40	150	1 x 2	.79
SN2900	80	150	1 x 2 1/2	1.03
SN2901	20	350	1 x 2	.91
SN2902	30	350	1 x 2	1.00
SN2903	50	350	1 x 2	1.21
SN2904	10	450	1 x 2	.76
SN2905	20	450	1 x 2 1/2	1.03
SN2906	30	450	1 x 3	1.12
SN2907	40	450	1 x 3 3/8	1.32
SN2908	50	450	1 x 3 3/8	1.68
SN2909	80	450	1 3/8 x 3 3/8	2.26
SN2910	10	525	1 x 3	1.03
SN2911	20	525	1 x 3	1.56
SN2912	20-20	150	1 x 2	.91
SN2913	30-30	150	1 x 2	1.03
SN2914	40-20	150	1 x 2	1.03
SN2915	50-30	150	1 x 2	1.15
SN2916	50-50	150	1 x 3	1.23
SN2917	80-40	150	1 x 3	1.32
SN2918	15-15	350	1 x 2	1.23
SN2919	20-20	350	1 x 2 1/2	1.38
SN2920	40/20	150/50	1 x 2	1.00
SN2921	10/25	450/50	1 x 2	1.18
SN2922	10-10	450	1 x 2 1/2	1.23
SN2923	20-20	450	1 x 3 3/8	1.56
SN2924	30-30	450	1 3/8 x 3	1.91
SN2925	40-40	450	1 3/8 x 3	2.35
SN2926	20-20-20	150	1 x 2	1.35
SN2927	40-40-40	150	1 x 3	1.53
SN2928	40-20-10	150	1 x 2 1/2	1.38
SN2929	40-30-20	150	1 x 2 1/2	1.44
SN2930	80-40-20	150	1 x 3	1.65
SN2931	30-20/25	150/25	1 x 2	1.32
SN2932	40-20/100	150/25	1 x 2 1/2	1.76
SN2933	50-30/30	150/25	1 x 2 1/2	1.44
SN2934	15-15/20	350/25	1 x 3	1.50
SN2935	30-30/50	350/50	1 3/8 x 3	1.79
SN2936	20-20/20	450/25	1 x 3	1.73
SN2937	10-10-10	450	1 x 3	1.47
SN2938	15-15-15	450	1 x 3 3/8	1.79
SN2939	20-20-20	450	1 3/8 x 3	2.03
SN2940	30-30/20	450/25	1 x 3	1.85
SN2941	40-40/40	450/25	1 3/8 x 3 3/8	2.20
SN2942	40-20/25	450/50	1 3/8 x 3	2.00
SN2943	15-15/10	450/50	1 x 3	1.59
SN2944	40-40-40-20	150/25	1 3/8 x 2 1/2	1.85
SN2945	10-10-10-10	450	1 3/8 x 2 1/2	1.91
SN2946	10-10-10/20	450/25	1 3/8 x 2	1.79
SN2947	40-30-10/20	450/25	1 3/8 x 3 3/8	2.62

## SOLAR PLUG-THROUGH ELIM-O-STAT

Compact, easily-installed plug-through filter used between set and outlet or between appliance and outlet for the purpose of eliminating low intensity interference.

5N2828—Type ED101..... 73c



## WAX IMPREGNATED CONDENSERS

Type DS-B are single, dual and triple section condensers. Wax impregnated coated cardboard tubes with sturdy center mounting straps. Mounts to chassis with only one screw. 5" long color-coded leads.

No.	Cap.	Voltage	Size	Ea.
SN2759	10-10	25	1 1/2 x 2 1/2	.62
SN2760	20-20	150	1 1/2 x 2 1/2	.76
SN2761	30-30	150	1 1/2 x 2 1/2	.88
SN2762	40-40	150	1 x 2 1/2	1.00
SN2763	50-30	150	1 x 2 1/2	1.00
SN2764	50-50	150	1 x 3	1.09
SN2765	80-40	150	1 1/2 x 3	1.18
SN2766*	20-20	150	1 x 2 3/8	1.18
SN2767	20-20-20	150	1 x 2 3/8	1.18
SN2768	40-30-20	150	1 x 3	1.26
SN2769	80-40-20	150	1 1/2 x 3 1/4	1.47
SN2770	40-10/20	150/25	1 x 2 1/2	1.15
SN2771	30-20/20	150/25	1 x 2 3/8	1.15
SN2772	40-30/20	150/25	1 x 3	1.21
SN2773	50-50/20	150/25	1 x 3 1/4	1.32
SN2774	40-40/40	150/25	1 x 3 1/4	1.29

\*Separate sections—all others common negative.



## "MINICAP" DRY ELECTROLYTICS

Small hermetically sealed metal cased. Units have axial bare wire leads. Dual units have common negative.

No.	Mfd.	Volts	Size	Ea.
SN2850	10	25	1 1/4 x 1 3/16	.44
SN2851	25	25	1 1/4 x 1 3/16	.50
SN2852	50	25	1 1/4 x 1 3/16	.59
SN2853	10	50	1 1/4 x 1 3/16	.47
SN2854	25	50	1 1/4 x 1 3/16	.53
SN2855	100	50	1 1/4 x 1 3/16	.88
SN2856	8	150	1 1/2 x 1 9/16	.47
SN2857	12	150	1 1/2 x 1 9/16	.50
SN2858	16	150	1 1/2 x 1 9/16	.53
SN2859	20	150	1 1/2 x 1 9/16	.56
SN2860	24	150	1 1/2 x 1 9/16	.56
SN2861	30	150	1 1/2 x 1 9/16	.59
SN2862	40	150	1 1/2 x 2 1/16	.65
SN2863	8	250	1 1/2 x 1 9/16	.47
SN2864	16	250	1 1/2 x 1 9/16	.65
SN2865	10	350	1 1/2 x 1 11/16	.59
SN2866	20	350	1 1/2 x 1 11/16	.76
SN2867	40	350	1 1/2 x 2 1/16	.97
SN2868	4	450	1 3/4 x 1 11/16	.53
SN2869	8	450	1 3/4 x 1 11/16	.56
SN2870	10	450	1 3/4 x 1 11/16	.62
SN2871	16	450	1 3/4 x 2 1/16	.79
SN2872	20	450	1 x 2 1/2	.88
SN2873	30	450	1 x 2 3/8	.97
SN2874	40	450	1 1/8 x 2 1/16	1.18
SN2875	8	525	1 3/8 x 2 1/16	.76
SN2876	16	525	1 x 2 1/2	1.18
SN2877	20-20	150	1 1/4 x 2 1/16	.76
SN2878	30-30	150	1 1/2 x 1 11/16	.88
SN2879	40-40	150	1 1/2 x 2 1/16	1.00
SN2880	50-30	150	1 1/2 x 2 1/16	1.00
SN2881	50-50	150	1 1/2 x 2 1/16	1.09
SN2882	80-40	150	1 1/2 x 2 1/16	1.18
SN2883	8-8	450	1 3/8 x 2 1/16	1.00

## PLUG-IN SOCKET ELIM-O-STAT FILTERS



Efficient, twin-pl capacitive - inductive filters attenuate interference on Television, standard and short wave bands.

Furnished with exclusive three-wire line cord which incorporates the filter grounding lead. Each filter also provided with binding post for return lead to motor or appliance frame when required. Rated voltage: 125 volts. Maroon-wrinkle finish.

No.	Type	Max. Amps.	Each
SN2832	ED-104	3	3.38
SN2825	ED-105	5	5.73
SN2826	ED-106	10	8.08



**"TVC" METAL TUBULAR CAPACITORS**



Compact can type withstands severe climatic conditions. Non-inductive, impregnated, filled with Dykanol "B" to maintain high insulation resistance.

1000 Volts D.C.

Stock No.	Mfd.	Size	Ea.
5N1175	.005	1 1/2 x 1 1/2	\$0.65
5N1176	.01	1 1/2 x 1 1/2	.65
5N1177	.015	1 1/2 x 1 1/2	.71
5N1178	.02	1 1/2 x 1 1/2	.71
5N1179	.03	1 1/2 x 1 1/2	.71
5N1180	.04	1 1/2 x 1 1/2	.71
5N1181	.05	1 1/2 x 1 1/2	.76
5N1182	.1	1 1/2 x 1 1/2	.88

1600 Volts D.C.

5N1183	.005	1 1/2 x 1 1/2	.71
5N1184	.01	1 1/2 x 1 1/2	.71
5N1185	.015	1 1/2 x 1 1/2	.73
5N1186	.02	1 1/2 x 1 1/2	.76
5N1187	.03	1 1/2 x 1 1/2	.76
5N1188	.04	1 1/2 x 1 1/2	.78
5N1189	.05	1 1/2 x 1 1/2	.82

**C-D "SILVER MIKES"**



For high Q circuits where frequency stability and minimum loss must be maintained. Molded in low-loss red bakelite with tinned brass wire leads. Rated 500 volts D.C. wkg. 1000 volts D.C. test. Tolerance = 5%. All are 1/4" thick except .004 and .005 which are 1/8".

Type B—1/4" x 1 1/2"

No.	Mfd.	Each
5N1351	.000005	26c
5N1352	.00001	24c
5N1353	.000025	24c
5N1371	.00004	24c
5N1383	.00005	24c
5N1384	.00007	24c
5N1385	.0001	24c
5N1386	.00015	26c
5N1387	.0002	26c
5N1388	.00025	26c
5N1389	.0003	32c
5N1390	.0004	38c
5N1391	.0005	41c

Type A—1 1/2" Square

No.	Mfd.	Each
5N1392	.001	\$0.65
5N1393	.0015	.79
5N1394	.002	.79
5N1395	.0025	1.06
5N1396	.003	1.21
5N1397	.004	1.26
5N1398	.005	1.32

**C-D MOLDED MICAS**

Compact mica condensers in molded bakelite housings. With wire leads. Individually tested; will give dependable service. Type 1W (fig. A) is 1 1/2" x 1 1/2"; type 5W (fig. B) are only 1/2" x 1 1/2". All are 1000 volts test, 500 volts DC working except sizes higher than .006 mfd. which are 600 volts test, 300 volts DC working.

No.	Mfd.	Fig.	Ea.
5N1355	.00001	B	15c
5N1356	.00002	B	15c
5N1357	.000025	B	15c
5N1358	.00005	B	12c
5N1359	.0001	B	12c
5N1360	.00015	B	12c
5N1361	.0002	B	12c
5N1362	.00025	B	15c
5N1363	.0005	B	15c
5N1364	.001	A	18c
5N1366	.002	A	24c
5N1367	.003	A	29c
5N1372	.004	A	32c
5N1373	.005	A	35c
5N1374	.006	A	44c
5N1377	.01	A	71c

**"KR" DRY ELECTROLYTICS**



Compact etched foil. Color coded leads. Seamless drawn metal can, mounting nut. Dual units have separate sections.

450 Volts DC Working

Stock No.	Cap. Mfd.	Size Inches	Ea.
5N1295	4	1x2 1/2	\$1.00
5N1296	8	1x2 1/2	1.03
5N1297	12	1x2 1/2	1.26
5N1298	16	1x3 1/2	1.41
5N1299	4-8	1 1/2 x 3	1.47
5N1300	8-8	1 1/2 x 3	1.62
5N1354	8-16	1 1/2 x 4 1/2	1.91
5N1302	8-8-8	1 1/2 x 4 1/2	2.50

600 Volts D.C. Working

Stock No.	Cap. Mfd.	Size Inches	Ea.
5N1050	8	1 1/2 x 4 1/2	\$2.35
5N1051	16	1 1/2 x 4 1/2	2.94

**WET ELECTROLYTIC REPLACEMENTS**



Type "WR" Dry electrolytic, aluminum cans. Can is negative, lug terminal. Rated at 450 W. 10 mfd. units replace wet electrolytics from 4 to 12 mfd., 20 mfd., 16 to 20 mfd., 30 mfd., 20 to 30 mfd., 40 mfd., 30 to 40 mfd. 3/4" mounting stud with polnut.

No.	Mfd.	Size	Ea.
5N1052	10	1 1/2 x 2 1/2	\$0.85
5N1053	20	1 1/2 x 2 1/2	1.32
5N1057	30	1 1/2 x 3 1/4	1.53
5N1056	40	1 1/2 x 3 1/4	1.71

**"BRH" HIGH CAPACITY LOW VOLTAGE UNITS**



Etched foil electrolytic capacitors for portable radio power rectifying circuits, electric fence devices, etc. Aluminum cans, cardboard sleeves. Center mount.

No.	Mfd.	Volts	Size	Ea.
5N2567	100	6	1 1/2 x 1 1/2	.68
5N2570	250	6	1 1/2 x 1 1/2	.85
5N2568	500	6	1 1/2 x 2 1/2	1.00
5N2569	1000	6	1 1/2 x 2 1/2	1.32
5N2573	1500	6	1 1/2 x 2 1/2	1.76
5N2574	2000	6	1 1/2 x 2 1/2	2.29
5N2575	100	12	1 1/2 x 1 1/2	.73
5N2571	250	12	1 1/2 x 2 1/2	1.03
5N2577	500	12	1 1/2 x 2 1/2	1.12
5N2578	100	15	1 1/2 x 1 1/2	.76
5N2572	250	15	1 1/2 x 2 1/2	1.12
5N2576	500	15	1 1/2 x 2 1/2	1.23
5N2579	100	25	1 1/2 x 2 1/2	.79
5N2580	250	25	1 1/2 x 2 1/2	1.18
5N2553	500	25	1 1/2 x 2 1/2	1.32
5N2554	100	50	1 1/2 x 2 1/2	.88

**"DA" & "DG" METAL CASED PAPER BY-PASS CONDENSERS**



Non-inductively wound. Wax impregnated.

400 Volts D.C. Wkg.

No.	Mfd.	L x W x T	Each
5N1277	.1	1 1/2 x 1 x 1/4	\$1.03
5N1278	.25	1 1/2 x 1 x 1/4	1.18
5N1279	.5	1 1/2 x 1 x 1/4	1.26
5N1342	1.0	2x1 1/2 x 1 1/2	1.53
5N1343	2.0	2x2x1 1/2	1.97
5N1344	1-1	1 1/2 x 1 x 1/4	1.62
5N1345	25-.25	2x1 1/2 x 1 1/2	1.76
5N1346	5-.5	2x1 1/2 x 1 1/2	2.06

600 Volts D.C. Wkg.

5N1348	.5	2x1 1/2 x 1 1/2	\$1.62
5N1350	1.0	2x2x1 1/2	1.85

**CORNELL-DUBLIER CONDENSERS**

**"GREY TIGER" PAPER TUBULAR CONDENSERS**

New high temperature Vikane impregnated paper tubulars. Withstand range of -55° to +100° C. 2 1/2" tinned leads securely soldered to capacitor element.



400 VDCW

No.	Mfd.	Each
5N1060	.005	.15
5N1061	.01	.15
5N1062	.02	.15
5N1063	.03	.15
5N1064	.05	.18
5N1065	.1	.21
5N1066	.15	.21
5N1067	.25	.26
5N1068	.5	.35

600 VDCW

5N1069	.001	.15
5N1070	.002	.15
5N1071	.003	.15
5N1072	.005	.15
5N1073	.01	.18
5N1074	.02	.18
5N1075	.03	.21
5N1076	.05	.24
5N1077	.1	.26
5N1078	.15	.26
5N1079	.25	.32
5N1080	.5	.47

**"BLUE BEAVER" TYPE BR DRY ELECTROLYTICS**

Small, handy to use. Electro-Chemical etching eliminates corrosion. Hi-Formation Process affords higher voltage breakdown. Sealed in drawn-aluminum cans. Card-board insulating sleeves.



No.	Mfd.	Volts	Size	Ea.	No.	Mfd.	Volts	Size	Ea.
5N1090	10	25	1 1/2 x 1 1/2	.44	5N1105	4	250	1 1/2 x 1 1/2	.47
5N1091	20	25	1 1/2 x 1 1/2	.47	5N1106	8	250	1 1/2 x 1 1/2	.47
5N1092	25	25	1 1/2 x 1 1/2	.50	5N1107	12	250	1 1/2 x 1 1/2	.59
5N1093	50	25	1 1/2 x 1 1/2	.56	5N1108	16	250	1 1/2 x 1 1/2	.65
5N1094	5	50	1 1/2 x 1 1/2	.44	5N1109	20	250	1 1/2 x 1 1/2	.71
5N1095	10	50	1 1/2 x 1 1/2	.47	5N1110	40	250	1 1/2 x 2 1/2	.82
5N1096	20	50	1 1/2 x 1 1/2	.50	5N1129	1	450	1 1/2 x 1 1/2	.47
5N1097	25	50	1 1/2 x 1 1/2	.53	5N1130	2	450	1 1/2 x 1 1/2	.50
5N1098	50	50	1 1/2 x 1 1/2	.62	5N1111	4	450	1 1/2 x 1 1/2	.53
5N1099	4	150	1 1/2 x 1 1/2	.44	5N1112	8	450	1 1/2 x 2	.56
5N1100	8	150	1 1/2 x 1 1/2	.47	5N1113	12	450	1 1/2 x 2	.69
5N1101	12	150	1 1/2 x 1 1/2	.50	5N1114	16	450	1 1/2 x 2 1/2	.71
5N1102	16	150	1 1/2 x 1 1/2	.53	5N1115	20	450	1 1/2 x 2 1/2	.88
5N1103	20	150	1 1/2 x 1 1/2	.56	5N1055	30	450	1x3	.97
5N1054	30	150	1 1/2 x 2	.59	5N1116	8	500	1 1/2 x 1 1/2	.76
5N1104	40	150	1 1/2 x 2	.65	5N1117	16	500	1x2 1/2	1.18

**"ED" CARDBOARD CASED ELECTROLYTICS**

Multiple wax filled, cardboard encased. All Com Neg except \*Separate Section. Center mounting strap; color-coded leads.



No.	Mfd.	V.	Size	Ea.	No.	Mfd.	Volts	Size	Ea.
5N1118	5-5	25	1 1/2 x 1 1/2	.56	5N1133	50-30	150	1x3	1.00
5N1119	10-10	25	1 1/2 x 1 1/2	.62	5N1134*	20-20	150	1 1/2 x 2 1/2	1.18
5N1120	5-5	50	1 1/2 x 1 1/2	.65	5N1135	20-20/20	150/25	1x2 1/2	1.12
5N1121	10-10	50	1 1/2 x 1 1/2	.68	5N1136	40-20/20	150/25	1x2 1/2	1.18
5N1122	8-8	150	1 1/2 x 2 1/2	.68	5N1137	50-30/20	150	1 1/2 x 3	1.23
5N1123	8-16	150	1 1/2 x 2 1/2	.71	5N1125	8-16	250	1 1/2 x 2 1/2	.94
5N1124	20-20	150	1 1/2 x 2 1/2	.76	5N1126	16-16	250	1x2 1/2	1.00
5N1131	40-20	150	1 1/2 x 2 1/2	.88	5N1127	8-8	450	1x2 1/2	1.00
5N1132	40-40	150	1x3	1.00	5N1128	8-16	450	1 1/2 x 3 1/2	1.18

**BBR MINIATURE ELECTROLYTIC CONDENSERS**

Baby BR type tubular electrolytics hermetically sealed. Designed for use in compact equipment such as hearing aids, pocket radios, etc.



No.	Mfd.	Size	V.	Ea.	No.	Mfd.	Size	V.	Ea.
5N1081	50	1 1/2 x 1 1/2	6	59c	5N1086	10	1 1/2 x 1 1/2	50	59c
5N1082	25	1 1/2 x 1 1/2	6	59c	5N1087	5	1 1/2 x 1 1/2	50	59c
5N1083									



# SPRAGUE CONDENSERS — NOISE FILTERS



## TYPE 68P MIDGET TUBULARS

EXTRA SMALL TUBULARS DESIGNED FOR MINIATURE RADIOS

### 600 Working Volts DC

No.	Mfd.	Size	Each
5N2494	.001	1/4 x 1 1/8	.21
5N2493	.002	1/4 x 1 1/8	.21
5N2492	.003	1/4 x 1 1/8	.21
5N2491	.004	1/4 x 1 1/8	.21
5N2490	.005	1/4 x 1 1/8	.21
5N2489	.006	1/4 x 1 1/8	.24
5N2488	.01	1/4 x 1	.26
5N2487	.02	1/4 x 1	.29
5N2486	.05	1/4 x 1 1/2	.32
5N2485	.1	1/4 x 1 3/8	.41
5N2484	.25	1/4 x 2	.47

### 400 Working Volts DC

No.	Mfd.	Size	Each
5N2500	.001	1/4 x 1 1/8	.21
5N2501	.002	1/4 x 1 1/8	.21
5N2502	.003	1/4 x 1 1/8	.21
5N2503	.004	1/4 x 1 1/8	.21
5N2504	.005	1/4 x 1 1/8	.21
5N2505	.006	1/4 x 1 1/8	.21
5N2506	.01	1/4 x 1 1/8	.24
5N2507	.02	1/4 x 1	.26
5N2508	.05	1/4 x 1	.29
5N2499	.1	1/4 x 1 1/2	.38
5N2498	.25	1/4 x 1 3/8	.44
5N2497	.5	1/4 x 2 1/2	.52

### 200 Working Volts DC

No.	Mfd.	Size	Each
5N2509	.005	1/4 x 1 1/8	.21
5N2510	.006	1/4 x 1 1/8	.21
5N2511	.01	1/4 x 1 1/8	.24
5N2512	.02	1/4 x 1 1/8	.26

### 100 Working Volts DC

5N2520	.25	1 1/4 x 1 1/2	.41
5N2521	.5	1 1/4 x 1 1/2	.47

## TYPE TM "600" LINE

600 volt DC molded tubulars. Maximum dependability under extremes of heat, humidity and physical stress. For use in auto radios, AC-DC sets. Soldered bead designates outside foil.



No.	Mfd.	Ea.	No.	Mfd.	Ea.	No.	Mfd.	Ea.	No.	Mfd.	Ea.
5N2527	.0001	.15	5N2632	.002	.15	5N2636	.006	.15	5N2641	.1	.25
5N2528	.00025	.15	5N2633	.003	.15	5N2637	.01	.18	5N2642	.25	.82
5N2529	.0004	.15	5N2634	.004	.15	5N2638	.02	.18	5N2643	.5	.47
5N2530	.0005	.15	5N2635	.005	.15	5N2639	.05	.24	5N2644	1.0	.73
5N2531	.001	.15			5N2640	.06	.24				

## TYPE "MB" MOLDED TUBULARS

1600 Volts Working Oil Impregnated

No.	Mfd.	Dia.	Lgt.	Each	No.	Mfd.	Dia.	Lgt.	Each
5N2690	.001	1/4	1 1/2	.32	5N2693	.01	1/4	2	.35
5N2691	.002	1/4	1 1/2	.32	5N2694	.02	1/4	2	.35
5N2692	.005	1/4	1 1/2	.32	5N2695	.05	1/4	2 1/2	.41

## SPRAGUE CONDENSER KITS

Paper Tubular Kit of 10 type TM condensers. Contains three .05, two each .01, .02, .1 and one .25 all 600v.

5N2676..... **2.28**

Paper Tubular Kit of 10 condensers. Contains four .01, three .02, two .05 and one .1. All 600v.

5N2677..... **2.00**

## PHOTO-FLASH CONDENSERS

Light weight, Hermetically sealed units with "Vitamin Q" impregnation. Designed for continuous rapid operation. 10,000 peak flashes guaranteed. 1800 peak flashes per hour maximum permissible. Adaptable to other uses where accurate time constants are required.



No.	Sprague	Mfd.	DC Peak V	Watt/sec	Size	Each
5N3144	PQ 2510	10	2500	31	3 3/4 x 1 3/8 x 4 1/8	10.00
5N3145	PQ 2515	15	2500	47	3 3/4 x 2 1/2 x 4 1/8	11.76
5N3146	PQ 2525	25	2500	78	3 3/4 x 4 1/8 x 4 1/8	15.58
5N3147	PQ 2535	35	2500	100	3 3/4 x 4 1/8 x 6	19.11
5N3148	PQ 315	15	3000	67	3 3/4 x 4 1/8 x 4 1/8	14.41
5N3149	PQ 425	25	4000	200	3 3/4 x 4 1/8 x 8 3/4	24.99

## PHOTO FLASH BROCHURE

Sprague's complete Brochure on Photoflash Principles, How to Build Flash Unit, How to Use.

23N19997..... **25c**

23N19999—Sprague Tel-U-How Wall Chart..... **FREE**

## "IF" NOISE FILTERS

Small compact units for elimination of electrical noise. Types IF 15 and IF 21 for small motors. Type 11 for 1 HP motors or larger. Type IF S1 for thermostats, relays, door-bells, etc. Type IF 37 for single fluorescent lamps. All rated 220 V AC-DC.



No.	Sprague	Sec.	Size	Ea.	No.	Sprague	Sec.	Size	Ea.
5N12485	IF 15	3	1 x 2 1/2"	1.12	5N12488	IF S1	1	1 1/2 x 2 1/2"	.68
5N12486	IF 11	2	1 1/2 x 3 1/2"	2.59	5N12489	IF 37	3	1 x 2 1/2"	.88
5N12487	IF 21	2	1 x 2 1/2"	.91					



## "ELS" ELECTROLYTICS

Self-mounting can type electrolytics withstand high ripple currents and reverse currents of selenium rectifier circuits. Lug-type terminals.

### 150 W.V.D.C.

No.	Mfd.	Type	Each
5N2468	40	ELS-1	.79
5N2469	80	ELS-2	1.03
5N2470	150	ELS-3	1.62

### 300 W.V.D.C.

No.	Mfd.	Type	Each
5N2477	40-40	ELS-10	1.76
5N2478	60-60	ELS-11	1.91
5N2479	80-40	ELS-12	2.15

### 300 W.V.D.C.

5N2471	60	ELS-4	1.26
5N2472	80	ELS-5	1.47

### 150 W.V.D.C.

5N2473	20-20	ELS-6	.91
5N2474	40-40	ELS-7	1.15
5N2475	80-40	ELS-8	1.32

### 150 W.V.D.C.

5N2480	20-20-20	ELS-13	1.35
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### 150/25 W.V.D.C.

5N2481	20-20/20	ELS-14	1.29
5N2482	40-20/20	ELS-15	1.35

### 200 W.V.D.C.

5N2476	40-40	ELS-9	1.29
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### 300/25 W.V.D.C.

5N2483	40-20/20	ELS-16	1.76
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## TYPE "EL" PRONG-BASE DRY ELECTROLYTICS

Sealed metal cans with self-mounting feature; metal ears bend back. Lug terminals coded. With bakelite metal mtg. plates.

No.	Mfd.	Wkg. Vlt.	D. L.	Ea.	No.	Mfd.	Wkg. Vlt.	D. L.	Ea.
5N2522	10	450	1 x 2	.76	5N2540	50-50	150	1 x 3	1.23
5N2523	15	450	1 x 2	.91	5N2541	10-10/20	450/25	1 x 3	1.38
5N2524	20	450	1 x 2	1.03					
5N2525	40	450	1 x 3	1.32	5N2548	20-20/20	400/25	1 x 3	1.65
5N2526	10-10	450	1 x 2	1.23	5N2550	10-10/20	350/25	1 x 2	1.35
5N2527	20-20	450	1 x 3	1.58	5N2552	20-20-20	150	1 x 2	1.35
5N2528	40-40	450	1 3/8 x 3	2.35	5N2556	40-20-20	150	1 x 2 1/2	1.41
5N2529	20-20	250	1 x 2	1.21	5N2593	40-40-40	150	1 x 3	1.53
5N2531	20-20	150	1 x 2	.91	5N2597	10-10-10/20	450/25	1 3/8 x 2	1.79
5N2532	30-50	150	1 x 3	1.15	5N2599	20-10-5/10	350/25	1 3/8 x 2	1.79
5N2533	40-20	150	1 x 2	1.03	5N2602	40-20-10/20	200/25	1 1/2 x 3	1.85

## TYPE PLS "TINY MIKE"

Dry electrolytic can. Standard mtg. through chassis by threaded bushing on can insulating from sections. Separate positive and negative leads.



450 Volts Working					525 Surge Volts				
Stock No.	Cap. Mfd.	No. of Leads	Dimen. Dia. Lg.	Each	Stock No.	Cap. Mfd.	No. of Leads	Dimen. Dia. Lg.	Each
5N2795	4	2	1 x 2 3/4	\$1.00	5N2789	40	2	1 3/8 x 3 1/8	2.00
5N2796	8	2	1 x 3	1.03	5N2790	4-8	4	1 3/8 x 2 1/8	1.47
5N2797	12	2	1 x 3	1.26	5N2799	8-8	4	1 3/8 x 2 1/8	1.62
5N2798	16	2	1 x 3	1.41	5N2791	8-16	4	1 3/8 x 4 1/8	1.91
5N2786	20	2	1 3/8 x 2 1/8	1.56	5N2801	16-16	4	1 3/8 x 3 1/8	2.06
5N2787	25	2	1 3/8 x 3 1/8	1.68	5N2800	8-8-8	6	1 1/2 x 2 1/8	2.50
5N2788	30	2	1 3/8 x 3 1/8	1.78					



## TYPE AP HI-VOLTAGE CAN

Dry Electrolytic for public address and theater applications where working voltage is high and surge voltage runs over 600.

Stock No.	Voltage Mfd.	Dim. DCW Surge D L	Each
5N2776	4 600	800 1 4/8	\$1.76
5N2777	8 600	800 1 1/2 4/8	2.35
5N2778	16 600	800 1 1/2 4/8	2.94

## SPRAGUE "ATOMS"

Ultra-compact dry electrolytics sealed in tubes with outer insulating sleeve. Protected against "Blow-ups." 3/16" bare leads riveted to end caps.



No.	Mfd.	Wkg. Vlt.	D. L.	Each	No.	Mfd.	Wkg. Vlt.	D. L.	Each
5N769	10	25	1/4 x 1 1/8	.44	5N2683	20-20†	150	1 x 2 1/2	1.18
5N770	25	25	1/4 x 1 1/8	.50	5N744	20-30*	150	1/4 x 2 1/2	.82
5N680	5	50	1/4 x 1 1/8	.44	5N797	30-30*	150	1 1/4 x 2 1/2	.88
5N682	10	50	1/4 x 1 1/8	.47	5N745	20-40*	150	1 1/4 x 2 1/2	.88
5N771	25	50	1/4 x 1 1/8	.53	5N746	40-30*	150	1 x 2 1/2	.94
5N2841	50	50	1 1/4 x 1 1/8	.68	5N798	40-40*	150	1 x 2 1/2	1.09
5N772	4	150	1/4 x 1 1/8	.44	5N799	50-30*	150	1 x 2 1/2	1.00
5N773	8	150	1/4 x 1 1/8	.47	5N747	50-50*	150	1 1/4 x 3 3/8	1.09
5N774	12	150	1/4 x 1 1/8	.50					
5N775	16	150	1/4 x 1 1/8	.53	5N2843	40-20†	150	1 1/4 x 2 1/2	1.38
5N776	20	150	1/4 x 1 1/8	.56	5N784	12-12*	200	1 1/4 x 2 1/2	.76
5N2840	30	150	1 1/4 x 1 1/8	.59	5N785	8-16*	200	1 1/4 x 2 1/2	.75
5N777	40	150	1/4 x 1 1/8	.65	5N2844	8-16†	250	3/4 x 2 1/2	.94
5N778	4	450	1/4 x 1 1/8	.53	5N2845	8-16†	250	1 x 2 1/2	1.32
5N779	8	450	1/4 x 1 1/8	.56	5N787	16-16*	200	1/2 x 2 1/2	.88
5N780	12	450	1/4 x 1 1/8	.58	5N2846	16-16†	250	1 x 2 1/2	1.00
5N781	16	450	1 1/4 x 2 1/8	.79					
5N782	20	450	1 1/4 x 2 1/8	.88	5N2684	16-16†	250	1 x 2 1/2	1.50
5N783	10-10†	50	1/4 x 2 1/8	.68	5N786	8-8*	450	1 1/4 x 2 1/2	1.00
5N3164	8-8*	150	1/4 x 2 1/8	.67	5N2685	8-8*	450	1 1/4 x 2 1/2	1.23
5N2842	12-20*	150	1 1/4 x 2 1/8	.78	5N2847	8-16*	450	1 x 2 1/2	1.18
5N3165	20-20*	150	1 1/4 x 2 1/8	.76					





### TC DRY ELECTROLYTICS

Small dependable hermetically sealed aluminum case type condensers. Supplied with leads and insulating tube. Ideal for under chassis mounting. Can be used under all climatic conditions. Average diameter one inch.

#### SINGLE SECTION—TYPE TC

Stock No.	Cap. Mfd.	Wkg. Volts	Each	Stock No.	Cap. Mfd.	Wkg. Volts	Each
5N829	1000	3	\$1.06	5N988	40	150	.85
5N830	500	6	1.00	5N988	50	150	.71
5N831	1000	6	1.32	5N989	60	150	.76
5N832	500	15	1.23	5N989	10	250	.56
5N848	10	25	.44	5N981	20	250	.71
5N875	25	25	.50	5N982	10	350	.57
5N876	50	25	.57	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

#### COMPACT TYPE TCD AND TCS TUBULARS



Similar to TC types, extremely compact, averaging one inch in diameter. Hermetically sealed in aluminum casing. Withstand moderately high humidity. Common negative with insulating covering. Type TCD has 3" tinned copper leads. Type TCS is the same but two independent sections, and solder lug terminals.

#### DUAL COMMON NEGATIVE TYPE TCD

Stock No.	Cap. Mfd.	Wkg. Volts	Each	Stock No.	Cap. Mfd.	Wkg. Volts	Each
5N852	25-25	25	.65	5N858	10-10	350	.94
5N853	20-20	150	.76	5N859	20-20	350	1.23
5N854	30-30	150	.88	5N860	8-8	450	1.00
5N855	40-40	150	1.00	5N861	10-10	450	1.09
5N856	10-10	250	.88	5N862	15-15	450	1.29
5N857	20-20	250	1.06	5N863	20-20	450	1.41

#### DUAL SEPARATE SECTION—TYPE TCS

Stock No.	Cap. Mfd.	Wkg. Volts	Each	Stock No.	Cap. Mfd.	Wkg. Volts	Each
5N864	15-15	150	1.15	5N870	8-8	350	1.23
5N865	20-20	150	1.18	5N871	15-15	350	1.59
5N866	30-30	150	1.35	5N872	8-8	450	1.29
5N867	40-40	150	1.47	5N873	15-15	450	1.76
5N868	10-10	250	1.29	5N874	20-20	450	1.94
5N869	20-20	250	1.59				

#### "TP" PAPER TUBULARS

Oil treated non-inductive units, wax filled and impregnated. All triple sealed. Not affected by humid climatic conditions. All have wire leads.



No.	Mfd.	Volts	Each	No.	Mfd.	Volts	Each
5N3896	.01	400	...14c	5N3907	.005	600	...14c
5N3897	.02	400	...14c	5N3908	.006	600	...14c
5N3898	.05	400	...16c	5N3909	.01	600	...16c
5N3899	.1	400	...19c	5N3910	.02	600	...16c
5N3818	.2	400	...24c	5N3820	.03	600	...19c
5N3900	.25	400	...24c	5N3821	.04	600	...19c
5N3901	.5	400	...31c	5N3911	.05	600	...22c
5N3819	1.0	400	...48c	5N3912	.06	600	...22c
5N3902	.0001	600	...14c	5N3913	.1	600	...24c
5N3903	.00025	600	...14c	5N3914	.25	600	...29c
5N3904	.0005	600	...14c	5N3915	.5	600	...42c
5N3905	.001	600	...14c	5N3823	1.0	600	...67c
5N3906	.002	600	...14c				

#### OIL IMPREGNATED TUBULARS

Compact oil impregnated paper dielectric condensers available in two types:  
**OW:** Oil impregnated and filled. Suitable for vibrators, etc. Paper tube, with mounting bracket. 1600 working volts d.c.  
**OT:** Oil impregnated and oil filled. Metal tubes. 2000 working volts d.c.



#### TYPE OW (1600 V.D.C.)

No.	Cap. Mfd.	Each
5N4011	.0005	32c
5N4012	.001	
5N4013	.002	
5N4014	.003	
5N4015	.004	
5N4060	.005	
5N4016	.006	35c
5N4017	.007	
5N4018	.008	
5N4062	.01	
5N4063	.015	
5N4064	.02	
5N4065	.03	41c
5N4066	.04	
5N4067	.05	

#### TYPE OT (2000 V.D.C.)

No.	Cap. Mfd.	Each
5N4021	.0025	...73c
5N4022	.005	...73c
5N4023	.0075	...73c
5N4024	.01	...73c
5N4026	.015	...76c
5N4027	.02	...79c
5N4028	.03	...82c
5N4029	.04	...82c
5N4030	.05	...85c

## MALLORY QUALITY CONDENSERS



#### TYPE FP AND WP COMPACT DRY ELECTROLYTICS

These capacitors, long considered standard for metal encased units, are ideal for many types of service. Light in weight, compact and provided with a complete mounting feature, they save assembly space and time. Thousands of these units have given excellent service under extreme conditions of high altitudes and humidity.

No.	Mfd.	Volts	Size	Each	No.	Mfd.	Volts	Size	Each
5N3700	1000	15	1x3"	1.91	5N3699	30	350	1x2"	1.00
5N3701	2000	15	1 1/2x3"	2.76	5N3707	50	350	1x3"	1.21
5N3702	100	25	1x2"	.85	5N3658	10	450	3/4x2"	.76
5N3703	500	25	1x3"	1.44	5N3659	15	450	1x2"	.91
5N3704	1000	25	1 1/2x3"	2.09	5N3708	20	450	1x2"	1.03
5N3705	500	50	1 1/2x3"	2.09	5N3791	30	450	1x3"	1.15
5N3790	50	150	1x2"	.85	5N3709	40	450	1x3"	1.32
5N3706	100	150	1x3"	1.15	5N3681	80	450	1 1/2x3"	2.29

#### Dual Section

No.	Mfd.	Volts	Size	Each	No.	Mfd.	Volts	Size	Each
5N3662	30-30	150	1x2"	1.03	5N3664	10-10	450	1x2"	1.23
5N3710	50-50	150	1x3"	1.23	5N3665	20-20	450	1x3"	1.56
5N3793	15-15	350	1x2"	1.23	5N3711	40-40	450	1 1/2x3"	2.35
5N3792	20-20	350	1x3"	1.33	5N3712	80-10	450	1 1/2x3"	2.50

#### Multiple Section

No.	Cap. Mfd.	Wkg. Volts	Size	Each
5N3713	20-20-20	150	1x2"	1.29
5N3795	40-40-40	150	1x3"	1.53
5N3714	10-10-10	350	1x2"	1.41
5N3670	10-10-10	450	1x3"	1.47
5N3798	15-15-10	450	1x3"	1.68
5N3725	15-15/1000	150/2	1x2"	1.59
5N3715	(40-20)(20)	(150)(25)	1x2"	1.35
5N3716	(50-30)(100)	(150)(25)	1x3"	1.76
5N3717	(15-10)(20)	(350)(25)	1x2"	1.35
5N3718	(30-10)(20)	(350)(250)	1x3"	1.68
5N3719	(30-20)(20)	(350)(25)	1x3"	1.65
5N3668	(10-10)(20)	(450)(25)	1x2"	1.38
5N3799	(20-20)(20)	(450)(25)	1x3"	1.73
5N3720	(40-40)(20)	(450)(25)	1 1/2x3"	2.15
5N3721	(40-40-30)(20)	(150)(25)	1 1/2x2"	1.82
5N3673	(15-15-10)(20)	(450)(25)	1 1/2x2"	2.00
5N3722	(20-15)(20-20)	(450)(25)	1 1/2x2"	2.00
5N3723	(40-30-10)(20)	(450)(25)	1 1/2x3"	2.47
5N3724	10-10-10-10	450	1 1/2x2"	1.91

#### Mounting Plates for Above Condensers

For 3/4" dia. cans 5N3674—Bakelite 5N3677—Metal } Any Type  
 For 1" dia. cans 5N3675—Bakelite 5N3678—Metal } 3C Each  
 For 1 1/8" dia. cans 5N3676—Bakelite 5N3679—Metal }



#### CARDBOARD TUBULAR DRY ELECTROLYTICS

In waxed cardboard tubes furnished with an adjustable strap for horizontal mounting. Insulated leads. Mallory type numbers marked (\*) have leads out both ends. The other types have all leads out one end only. The convenience of the insulated leads and the mounting ease make these capacitors popular for replacement and original application.

#### Single Section—Type ST

No.	Type	Mfd.	Volts DC	Size	Each
5N3734	ST595	8	450	3/4x2 1/2	.68
5N3735	ST597	16	450	13/16x2 3/4	.91
5N3736	ST598	20	450	1x2 3/4	1.00
5N3737	ST599	30	450	1x3 1/2	1.09

#### Dual—Type 2N—Common Negative

No.	Type	Mfd.	Volts DC	Size	Each
5N3738	2N509*	20-20	150	7/8x2 3/8	.76
5N3739	2N513*	30-30	150	7/8x2 3/8	.88
5N3740	2N514*	40-20	150	7/8x2 3/8	.88
5N3741	2N511*	40-40	150	1x2 3/8	1.00
5N3742	2N520*	50-30	150	1x2 3/8	1.00
5N3743	2N521	50-50	150	1 1/4x2 7/8	1.21
5N3744	2N518	8-8	450	15/16x2 3/4	1.12

#### Triple—Types 3N and TN—Common Negative

No.	Type	Mfd.	Volts DC	Size	Each	
5N3745	3N527*	(20-20) (20)	(150) (25)	15/16x2 3/8	1.12	
5N3746	3N533*	(30-30) (20)	(150) (25)	1x2 3/8	1.15	
5N3747	TN125*	20-10	10	150	7/8x2 1/2	1.09
5N3748	TN129	40-20	20	150	1 1/8x2 7/8	1.35

#### ALUMINUM CAN DRY ELECTROLYTIC CAPACITORS

A high quality line of compact round can type filter condensers. Furnished complete with palnut and flat washer. All have color coded insulated leads. Shipping weight 8 oz.

No.	Type	Mfd.	Volts DC	Size	Each
5N3964	RS213	8	450	1x2 3/4	1.03
5N4058	HS693	8	600	1 1/2x4	2.35
5N3966	RS215	12	450	1x2 3/4	1.26
5N3967	RS216	16	450	1x3 1/2	1.41
5N3969	RS219	20	450	1 1/2x3	1.56
5N3970	RS223	30	450	1 1/2x3	1.76
5N3971	RS224	40	450	1 1/2x3	2.00
5N3972*	RM262	8-8	450	1 1/2x3 3/4	1.62

\*Separate Sections, insulated leads.



# AEROVOX CONDENSERS AND FILTERS

## "DANDEE" ULTRA-COMPACT TUBULAR DRY ELECTROLYTICS—TYPE PRS

Paper jacket over aluminum can. Dual units (Type PRS-A) in wax sealed cardboard tubes have common negative. Riveted center strap.



No.	Mfd.	Volts	Size	Ea.	No.	Mfd.	Volts	Size	Ea.
SN700	10	25	3/8x1 1/8	44c	SN756	16	450	1 1/2x2 3/8	.79
SN701	25	25	3/8x1 1/8	50c	SN8059	20	450	1 1/2x2 3/8	.88
SN702	10	50	3/8x1 1/8	47c	SN704	10-10	50	3/8x2 3/8	.68
SN703	25	50	3/8x1 1/8	53c	SN8056	10-10	25	3/8x2 3/8	.62
SN8052	50	50	3/8x1 1/8	62c	SN8057	8-8	150	3/8x2 3/8	.68
SN741	4	150	3/8x1 1/8	44c	SN8058	8-16	150	3/8x2 3/8	.71
SN742	8	150	3/8x1 1/8	47c	SN8059	20-20	150	3/8x2 3/8	.76
SN748	12	150	3/8x1 1/8	50c	SN8039	20-40	150	3/8x2 3/8	.88
SN749	16	150	3/8x1 1/8	53c	SN8040	30-30	150	3/8x2 3/8	.88
SN751	30	150	3/8x1 1/8	59c	SN8041	30-40	150	3/8x2 3/8	.94
SN752	40	150	3/8x2 3/8	65c	SN8042	30-50	150	1 1/2x2 3/8	1.00
SN724	12	250	3/8x1 1/8	59c	SN8043	40-40	150	1 1/2x2 3/8	1.00
SN737	8	350	3/8x2 3/8	53c	SN8044	40-80	150	1 1/2x2 3/8	1.18
SN739	16	350	3/8x2 3/8	73c	SN8045	50-50	150	1 1/2x3 1/8	1.09
SN753	4	450	3/8x1 1/8	53c	SN8060	8-8	200	3/8x2 3/8	.73
SN754	8	450	3/8x1 1/8	56c	SN8063	8-8	450	1 1/2x3 1/8	1.00
SN755	12	450	3/8x1 1/8	68c	SN8064	8-16	450	1 1/2x3 1/8	1.18

### 4-Lead Dual-Section "Dandees" Type PRS-B

No.	Mfd.	Volts	Size	Ea.	No.	Mfd.	Volts	Size	Ea.
SN5036	8-8	450	1x2 1/2	1.23	SN5038	16-16	450	1 1/2x3 1/2	1.88
SN5037	8-16	450	1x3 1/2	1.47					

### INVERTED DRY ELECTROLYTICS

Screw-mounted. All have two 8" color-coded leads per section for terminals.



Type GL-600—Single Section  
800 V. Peak—600 VDC Wkg.

No.	Mfd.	Diam.—Ht.	Ea.
SN4517	8	1 1/2x4 1/2	2.35
SN4515	16	1 1/2x4 1/2	2.94

Type 2GL-450—Double Section  
525 V. Peak—450 VDC Wkg.

SN4656	8-8	1 1/2x4	1.62
SN4686	8-16	1 1/2x4	1.91
SN4574	16-16	1 1/2x4	2.06
SN4575	20-20	1 1/2x4	2.35

Type GL-450—Single Section  
525 V. Peak—450 VDC Wkg.

SN4652	8	1 1/2x4	1.03
SN5653	12	1 1/2x4	1.26
SN4654	16	1 1/2x4	1.41
SN4577	20	1 1/2x4	1.56
SN4679	30	1 1/2x4	1.76
SN4580	40	1 1/2x4	2.00
SN4572	80	1 1/2x4	3.53

Type 3GL-450—Triple Section  
525 V. Peak—450 VDC Wkg.

SN4658	8-8-8	1 1/2x4 1/2	2.50
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### PLUG-IN DRY ELECTROLYTICS

Type AEP: Plugs into octal socket. Aluminum internal construction. Replaces wet electrolytics providing surge voltage does not exceed 525 volts.



No.	Mfd.	Size	Ea.	No.	Mfd.	Size	Ea.
SN5014	10	1 1/2x2 1/2	1.53	SN5002	20	1 1/2x2 3/8	1.41
SN5015	20	1 1/2x2 1/2	2.06	SN5003	40	1 1/2x2 3/8	1.59
SN5004	30	1 1/2x2 1/2	2.23	SN5005	20-20	1 1/2x2 3/8	1.92
SN5016	40	1 1/2x2 1/2	2.65	SN5006	40-40	1 1/2x2 3/8	2.29
SN5017	80	1 1/2x4 1/2	4.53	SN5007	20-20-20	1 1/2x2 3/8	2.70
SN5018	10-10	1 1/2x2 3/8	2.47				
SN5019	20-20	1 1/2x2 3/8	3.12				
SN5020	10-10-10	1 1/2x2 3/8	2.94				

### AEROVOX PAPER TUBULARS

Non-inductively wound. Fully wax impregnated. Have pigtail wire leads.



No.	Mfd.	Each	No.	Mfd.	Each
SN4731	.01	14c	SN4735	.05	16c
SN4733	.02	14c	SN4742	1.0	48c
SN4734	.03	16c			

600 WVDC					
SN4746	.001	14c	SN4754	.02	16c
SN4747	.002	14c	SN4755	.03	19c
SN4748	.003	14c	SN4756	.05	22c
SN4749	.005	14c	SN4758	.1	24c
SN4750	.006	14c	SN4760	.25	29c
SN4752	.01	16c	SN4762	.5	42c
SN4753	.015	16c			

1000 WVDC					
SN4766	.001	26c	SN4772	.01	26c
SN4767	.002	26c	SN4774	.02	26c
SN4768	.003	26c	SN4776	.05	31c
SN4769	.005	26c	SN4778	.1	37c



### TYPE IN-42

For use in serious cases of radio interference. Inductance capacitance Type. Plugs into electric outlet. Radio set or interfering device plugs into receptacle. 2 1/2"x3 3/4". 6 amps. at 110-220 V. AC.

SN12439.....4.41

### TYPE IN-29

Especially effective for local sources of interference of variable character but strong intensity. Very effective for electric razor and other vibrating mechanisms. Plug between device and line. Size 1 3/8"x3".

SN12435.....1.03

### TYPE 84 TELEVISION TUBULARS

Designed to meet elevated peaks and transients in TV and other cathode-ray tube applications and to reduce the effects of corona. Oil impregnated, improved wax-end seal for longer life. Wire leads, paper jacket.



10,000 VDC Type 10084			7500VDC Type 7584		
No.	Mfd.	Ea.	No.	Mfd.	Ea.
SN4784	.0001	.68	SN4726	.0001	.65
SN4785	.00025	.68	SN4727	.00025	.65
SN4786	.0005	.68	SN4728	.0005	.65
SN4787	.001	.68	SN4729	.001	.65
SN4788	.003	.71	SN4730	.003	.68
			SN4732	.005	.68

### AEROVOX DURANITE MOLDED TUBULAR CAPACITORS



Aerolene impregnated—replaces both wax and oil filled condensers. No deterioration in storage. Permanent, non-varying, rock-hard casing. Smooth clean surface. Does not dry out. Pigtailed leads won't pull out. Moisture proof, will stand up under high temperatures.

### Type P688-600 V.

No.	Mfd.	Size	Each
SN4801	.001	A	.15
SN4802	.0022	A	.15
SN4803	.0033	A	.15
SN4804	.0047	A	.15
SN4805	.0068	B	.15
SN4806	.01	B	.18
SN4807	.022	C	.18
SN4808	.033	D	.21
SN4809	.047	D	.21
SN4810	.068	E	.24
SN4811	.1	E	.26

A-1 1/2x1 1/2" D-1 1/2x1 1/2"  
B-1 3/8x1 1/2" C-1 3/8x1 1/2" E-2x1 1/2"

### HIGH VOLTAGE METAL CASED TUBULAR OIL CAPACITORS



Type 89. Oil-impregnated paper section is enclosed in a corrosion proof metal case hermetically sealed against oil leakage or moisture penetration. With center radial mounting strap and outer insulating tube.

Type 3589M—3500 WVDC				Type 6089M—6000 WVDC			
No.	Mfd.	Size	Each	No.	Mfd.	Size	Ea.
SN4537	.0005	1 1/2x1 1/2	1.03	SN4545	.0005	1 1/2x2 1/2	1.47
SN4738	.001	1 1/2x1 1/2	1.03	SN4546	.001	1 1/2x2 1/2	1.47
SN4539	.005	1 1/2x1 1/2	1.03	SN4547	.005	1 1/2x2 1/2	1.47
SN4540	.01	1 1/2x2 1/2	1.03	SN4548	.01	1 1/2x3 1/2	1.47
SN4541	.02	1 1/2x2 1/2	1.12	SN4549	.02	1 1/2x3 1/2	1.56
SN4542	.03	1 1/2x2 1/2	1.18	SN4550	.03	1 1/2x3 3/4	1.62
SN4543	.05	1 1/2x3 1/4	1.26	SN4551	.05	1 1/2x5 1/2	1.70
SN4544	.1	1 1/2x3 1/4	1.70				

### PORCELAIN CASED MICA CAPACITORS

Encased and hermetically sealed in glazed porcelain case. Heavy duty screw terminals. 3 1/2" Mtg. Ctrs. 4" x 3" high.



2000 Working Volts DC				5000 Working Volts DC			
No.	Mfd.	Type	Each	No.	Mfd.	Type	Each
SN4552	.02	1991	8.67	SN4562	.002	1993	5.14
SN4553	.1	1991	10.88	SN4563	.003	1993	5.59
				SN4564	.005	1993	6.17
				SN4565	.01	1993	8.97

10,000 Working Volts DC			
SN4556	.005	Type 1995	8.53

12,500 Working Volts DC			
SN4558	.001	Type 1996	4.72
SN4559	.003	Type 1996	8.97

### AEROVOX NOISE FILTERS

#### TYPE IN-23

Mounting g bracket for neon fixture or motor frame. Flexible leads. 5-5 mfd. 1"x2 1/8".

SN12432.....73c

#### FILTER SELECTOR

Type ANL-37 Selector switch adjusted until noise is eliminated or minimized. Dial indicates filter to use.



SN12440.....17.15

#### TYPE IN-27

Insert between set and outlet or use at appliance causing low-intensity interference. 1 3/8"x1 1/2".

SN12433.....88c

#### TYPE IN-31

Use between AC cord and electric outlet, at set or appliance for better filtering. 1 3/8"x3".

SN12438.....1.76

#### TYPE IN-28

For cases where ground is distance away. Mount directly on interfering device by bracket. 1 3/8"x2".

SN12434.....1.18

#### TYPE IN-30

Similar to IN-29 but with additional inductance. Handles more severe interference. Plugs between set and outlet. Size 1 3/8"x3".

SN12436.....1.47



## C-D QUIETONE INTERFERENCE FILTERS



Type IF-18. An efficient allwave capacitive 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 interference when installed between radio

and outlet—suppresses noise conditions when installed at the offending appliance or motor.  
 SN12493—Shipping weight 5 lbs. .... **4.91**

Type IF-4. For use on small radio receivers, such as AC-DC midget sets, where the noise level is not too severe. Connects in power line between the radio receiver plug and wall receptacle. Rating 5 amperes on 110 volts AC or DC. Walnut bakelite case.  
 SN12490—Shipping weight 8 oz. .... **65c**

## 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 interference and power supply with short return lead which reduces radiation. Rating 5 amperes at 110 volts AC or DC. Walnut finish.  
 SN12425—Shipping weight 8 oz. .... **1.03**



Type IF-21. All-wave capacitive-inductive 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 finish.  
 SN12495—Shipping weight 2 lbs. .... **2.35**

Type IF-19. Capacitive-inductive type filter for use where interference is severe. Frame connection provided. In Bakelite case, finished Walnut. 5 amperes at 110 V. AC-DC.  
 SN12494—Shipping weight 2 lbs. .... **4.12**



Type IF-22A. For use in connection with electric shavers such as Schick, Knapp, Monarch and similar type shavers. 5 amperes at 110 volts AC. Bakelite case, black finish.  
 SN12496—Shipping weight 1 lb. .... **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.  
 SN12497—Shipping weight 1 lb. .... **1.62**

## INDUSTRIAL QUIETONE INTERFERENCE FILTERS



Type IF-7A. Capacitive-inductive type heavy duty filter for eliminating noise created by motors, oil burners, diathermy machines, elevators, etc. In steel cutout box 6"x6"x4" with knock-outs for BX cable or conduit. For single phase 110-220 volts AC or DC at 5 amperes.  
 SN12500—Shipping weight 9 lbs. .... **7.35**

Type IF-27. Capacitive-inductive heavy duty type for severe interference from oil burners, motors, etc. For 110 volts AC or DC at 5 amperes. In steel box with flexible leads.  
 SN12498—Shipping weight 5 lbs. .... **4.12**

Type IF-28. Same as Type IF-27, but for equipment drawing up to 10 amps. at 110 V. AC or DC.  
 SN12499—Shipping weight 7 lbs. .... **7.35**

## 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"x7/8". For use on 110 volts AC or DC.  
 SN12501—Shipping weight 8 oz. .... **65c**

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"x2"x1 1/8". Insulated wire leads 6" long. Rated at 2 amperes on 110-220 volts AC or DC.  
 SN12431—Shipping weight 1 lb. .... **1.32**

## ICA "FILTERVOLTS"

All-Wave Model. Contains heavy duty R.F. chokes, large filter capacitors, "PI" filter unit. Eliminates noises caused by irons, toasters, vacuum cleaners, etc. Rated 250 watts, at 32, 110 and 220 volts a.c. or d.c. For use with any all-wave or broadcast receivers. 5x4x4 3/8".  
 SN12508—Shipping weight 5 lbs. .... **4.41**

Intermediate model. Eliminates extremely noisy radio reception due to power line disturbances caused by lights, electrical appliances etc. Can be installed at set or at source of interference. 4 3/8" x 3 3/8" x 1-13/16".  
 SN12507—Shipping weight 2 lbs. .... **2.65**

## RELIANCE "MITES" COMPACT

Ultra compact dry electrolytic condensers. Suited for use where space is limited. Card-board outer sleeves, wire leads.



No.	Mfd.	Vlts.	Size	Each
SN757	10	25	5/8x1 1/2	26c
SN758	25	25	5/8x1 1/2	31c
SN3275	5	50	1 1/2x1 1/2	28c
SN3276	10	50	1 1/2x1 1/2	30c
SN759	25	50	1 1/2x1 1/2	35c
SN3277	50	50	1 1/2x1 1/2	43c
SN760	4	150	1 1/2x1 1/2	26c
SN761	8	150	1 1/2x1 1/2	28c
SN762	12	150	1 1/2x1 1/2	30c
SN763	16	150	1 1/2x1 1/2	35c
SN764	20	150	1 1/2x1 1/2	37c
SN3278	30	150	1 1/2x1 1/2	41c
SN765	40	150	1 1/2x1 1/2	41c
SN3279	4	250	1 1/2x1 1/2	28c
SN3280	8	250	1 1/2x1 1/2	31c
SN3281	12	250	1 1/2x1 1/2	41c
SN3282	16	250	1 1/2x1 1/2	47c



## RELIANCE MIDGET PAPER CONDENSERS

Ideal for AC-DC sets or wherever space is a factor. Highest quality at lowest prices. Finest metal foil and linen paper. Hermetically sealed and impregnated. Long tinned wire leads.

No.	Mfd.	Volts	Each
SN3179	.01	400	9c
SN3180	.02	400	
SN3181	.05	400	
SN3182	.1	400	12c
SN3183	.25	400	14c
SN3174	.5	400	20c
SN3172	1.0	400	28c
SN3184	.001	600	9c
SN3185	.002	600	
SN3186	.006	600	
SN3187	.01	600	12c
SN3188	.02	600	14c
SN3189	.05	600	20c
SN3190	.1	600	28c
SN3191	.25	600	
SN3169	.5	600	

## MALLORY INTERFERENCE FILTERS



(A) Type X-6 for medium interference. Plug into socket ahead of affected installation. Brown plastic case. Size: 1 1/4" x 2-1/16" x 1". 5 amperes at 110 volts AC or DC.  
 SN12509—Wt. 8 oz. .... **84c**

Each, in lots of 6 .... **84c**

Type X-5. Triple capacity filter with provision for return lead to appliance. For Vacuum Cleaners, food mixers, etc. 1 3/8" x 2 1/8". 5 amperes at 110-220 volts AC or DC.  
 SN12523—Wt. 8 oz. .... **1.59**

(B) X-3 Plug-in. Capacitive type for use between set and outlet. Rated 5 amps. at 110-220 volts, or slight interference. 1 3/8" x 2 1/4".  
 SN12510 ..... **1.06**

(C) W-7 MOTOR TYPE  
 (C) Dual capacity unit. Use on motor brushes or rings. Bracket for mtg. to frame. For moderate interference. 110-220 volts 7/8" x 1-15/16".  
 SN12512 ..... **79c**

W-11. Like above, for severe interference. 1 3/8" x 3".  
 SN12513 ..... **1.23**

No.	Mfd.	Vlts.	Size	Ea.
SN3283	20	250	7/8x2 1/2	51c
SN3284	40	250	7/8x2 1/2	59c
SN767	8	450	1 1/2x1 1/2	37c
SN768	12	450	1 1/2x1 1/2	47c
SN788	16	450	1 1/2x1 1/2	56c
SN789	20	450	1 1/2x1 1/2	62c
SN790*	10-10	50	5/8x2 3/8	50c
SN3285*	8-8	150	1 1/2x2 3/8	51c
SN3287*	20-20	150	1 1/2x2 3/8	45c
SN792*	8-16	200	1 1/2x2 3/8	52c
SN793*	16-16	200	1 1/2x2 3/8	64c
SN794*	8-8	450	1x2 3/8	62c
SN3289*	8-16	450	1x2 3/8	84c
SN3290*	20-20	150	1 1/2x2 3/8	85c
SN3296*	8-8	450	1 1/4x3 3/8	85c

\*—3 lead; †—4 leads.  
 In Lots of 25 assorted 10% discount may be deducted.

## MIDGET MOLDED MICAS

Molded bakelite housings. With wire leads. Sizes through .004 mfd. are 1000 v. test, 500 v. dc wkg.; above .004 mfd. are 600 v. dc. test, 300 v. dc. wkg.

No.	Mfd.	Ea.	No.	Mfd.	Ea.
SN3438	.0001	8c	SN3411	.005	9c
SN3439	.00025	8c	SN3402	.006	9c
SN3403	.0005	8c	SN3416*	.01	11c
SN3405	.001	8c	SN3400*	.015	11c
SN3440	.0015	8c	SN3418*	.02	14c
SN3407	.002	8c	SN3404*	.03	18c
SN3408	.0025	8c	SN3446*	.04	21c
SN3409	.003	9c	SN3408*	.05	23c
SN3441	.004	9c	SN3401*	.06	28c



## NOISE SUPPRESSOR

Eliminates noise from 115 v. 50/60 cycle fluorescent. Leads shunted across power line. 4 1/4" x 1 3/4" x 1 1/2".  
 SN12520—Wt. 1 lb. .... **75c**

Z-6. A dual inductance-capacity filter with provision for return lead to ground. Suppresses severe interference. Rated 110-220 volts, 3 amps. Use at radio or noise source. 1 3/8" x 3 3/8".  
 SN12516 ..... **2.12**

Type Z-4. Dual inductance-capacity for severe interference where return lead is inconvenient. For vibrators. 1 3/8" x 3". 3 amperes 110-220 volts.  
 SN12524—Wt. 8 oz. .... **1.47**

Z-2. Capacitive-inductive. 3 amps. at 110-220 V. 1 3/8" x 2 3/4".  
 SN12511 ..... **1.29**

## HEAVY DUTY FILTERS

LC-5. Inductance capacity filter for severe interference. Rated 110-220 V., 5 amperes. Has cord, plug and receptacle. 2 7/8" x 3 3/4" high. Case has mtg flanges. Wt. 8 lbs.  
 SN12514 ..... **6.61**

LC-10. Same as above, rated 110-220 V., 10 amps.  
 SN12515 ..... **8.82**



# QUALITY HI-VOLTAGE CONDENSERS

Moulded in bakelite; mechanically strong; special impregnation; high insulation resistance. No magnetic material—reduces losses at all frequencies. Short, heavy terminals—minimum R.F. and contact resistance. India Mica of gauged thickness. Used for grid and plate blocking.

## CORNELL-DUBILIER X-MITTING MICAS



Type 4				Type 9			
600 V. Wkg. 1000 V. Test				600 V. Wkg. 1000 V. Test			
Stock No.	Cap. Mfd.	C.D. No.	Each	Stock No.	Cap. Mfd.	C.D. No.	Each
SN4156	.00005	4-14050	.41	SN4200	.00005	9-14050	.50
SN4157	.0001	4-13010	.41	SN4201	.0001	9-13010	.50
SN4158	.0002	4-13020	.41	SN4202	.00025	9-13025	.50
SN4159	.00025	4-13025	.41	SN4203	.0005	9-13050	.50
SN4160	.0005	4-13050	.41	SN4204	.001	9-12010	.50
SN4161	.001	4-12010	.41	SN4205	.002	9-12020	.53
SN4162	.002	4-12020	.47	SN4206	.01	9-11010	1.15
SN4163	.006	4-12060	.71	SN4207	.02	9-11020	1.53
SN4164	.01	4-11010	.94	SN4208	.03	9-11030	2.03
SN4165	.02	4-11020*	1.29	SN4209	.04	9-11040	2.65
SN4166	.03	4-11030*	1.73	SN4210	.05	9-11050†	3.15
1200 V. Wkg. 2500 V. Test				1200 V. Wkg. 2500 V. Test			
Stock No.	Cap. Mfd.	C.D. No.	Each	Stock No.	Cap. Mfd.	C.D. No.	Each
SN4168	.0001	4-23010	.57	SN4183	.0001	9-23010	.57
SN4169	.00025	4-23025	.57	SN4184	.00025	9-23025	.57
SN4170	.0005	4-23050	.57	SN4185	.0005	9-23050	.57
SN4171	.001	4-22010	.73	SN4186	.001	9-22010	.73
SN4172	.002	4-22020*	1.12	SN4187	.002	9-22020	1.12
SN4173	.005	4-22050*	1.41	SN4188	.005	9-22050	1.41
SN4174	.01	4-21010*	2.29	SN4189	.01	9-21010	2.29
2500 V. Wkg. 5000 V. Test				2500 V. Wkg. 5000 V. Test			
Stock No.	Cap. Mfd.	C.D. No.	Each	Stock No.	Cap. Mfd.	C.D. No.	Each
SN4175	.0001	4-53010	.73	SN4211	.0001	9-53010	.73
SN4176	.0002	4-53020	.82	SN4212	.00025	9-53025	.88
SN4177	.00025	4-53025	.88	SN4213	.0005	9-53050	1.00
SN4178	.0005	4-53050	1.00	SN4214	.001	9-52010	1.21
SN4179	.001	4-52010	1.21	SN4215	.002	9-52020	1.82
SN4180	.002	4-52020*	1.82	SN4216	.004	9-52040	2.56
SN4181	.004	4-52040*	2.56	SN4217	.005	9-52050	2.76
SN4182	.005	4-52050*	2.76	SN4218	.01	9-51010†	3.35

All thicknesses  $\frac{1}{16}$ , except \*  $\frac{1}{8}$ .  
Type 9 thick.  $\frac{1}{8}$ , except †  $\frac{1}{4}$ .

## CORNELL-DUBILIER TRANSMITTING CONDENSERS "TQ" DYKANOL "A"

Designed to stand up under high transient voltages and line surges. In cylindrical aluminum containers, with 2 insulated terminals and universal mounting bracket. May be mounted in any position. For continuous duty operation.



No.	Mfd.	Wkg. V.	Dimen. Ea.	No.	Mfd.	Wkg. V.	Dimen. Ea.
SN2962	2	600	2 1/2 x 2	SN2968	2	1500	3 1/2 x 2
SN2963	4	600	2 1/2 x 2	SN2969	1	2000	3 1/2 x 2
SN2964	1	1000	1 1/2 x 2	SN2970	2	2000	4 1/2 x 2
SN2965	2	1000	2 1/2 x 2	SN2971	4	2000	4 1/2 x 3
SN2966	4	1000	3 1/2 x 2	SN2972	1	3000	3 1/2 x 3
SN2967	1	1500	2 1/2 x 2	SN2973	2	3000	5 1/2 x 3

## "TJU" DYKANOL "A"

New universal type mounting bracket for quick, easy mounting makes these condensers a better buy than ever. DYKANOL filled and impregnated. Porcelain high tension terminals for trouble free high voltage use. Shipping weight 1 lb.

No.	Mfd.	Wkg. V.	Ht.	Each	No.	Mfd.	Wkg. V.	Ht.	Each
SN2994	1	600	2 1/2"	3.09	SN2999	1	1500	4"	3.97
SN2995	2	600	2 1/2"	3.82	SN3000	2	1500	4 1/2"	5.59
SN2996	4	600	3 1/2"	4.85	SN3005	4	1500	4 1/2"	7.50
SN2997	8	600	3 1/2"	7.20	SN2960	8	1500	4 1/2"	11.17
SN2997	1	1000	2 1/2"	3.38	SN3001	1	2000	3 1/2"	4.85
SN2998	2	1000	4"	4.41	SN3003	2	2000	4"	5.73
SN3004	4	1000	4 1/2"	5.59	SN3021	4	2000	3 1/2"	8.08
SN2958	8	1000	4 1/2"	8.08	SN3019	1	3000	3 1/2"	10.73
SN2959	10	1000	4 1/2"	8.97	SN3020	2	3000	4 1/2"	13.38
					SN3022	2	5000	6"	28.66

## PHOTO FLASH CAPACITORS

Cornell-Dubilier High-Speed Photo-Flash Energy Storage Capacitors. Type HGGT. Specially designed for use in high-speed photographic equipment. Compact and light-weight. Sturdy metal containers provided with heavy duty internal leads connected to bakelite cup insulated terminals.

Stock No.	C-D No.	Cap. Mfd.	Watt Sec.	Size, inches L x W x H	Wt. lbs.	Each
SN3040	HGGT1A00	15	30	3 1/2 x 2 1/2 x 4 1/4	2 1/2	10.00
SN3041	HGGT1A01	25	50	3 1/2 x 4 1/2 x 4 1/4	4 1/4	11.17
SN3042	HGGT115	28	71	3 1/2 x 4 1/2 x 4 1/4	4 1/4	18.23
SN3043	HGGT1A02	15	50	3 1/2 x 2 1/2 x 6 1/2	3 1/2	10.00
SN3044	HGGT103	25	80	3 1/2 x 4 1/2 x 6 1/2	5 1/2	13.52
SN3045	HGGT104	32	100	3 1/2 x 4 1/2 x 6 1/2	6	21.56

## "TLA" DYKANOL "A" FILTER CAPACITORS



In Sealed aluminum containers 4 1/2 x 1 1/2" (2 mfd. 600 v. and 1 mfd. 1000 v. are 2 7/8" high). Mount in any position. Dykanol dielectric.	No.	Cap. Mfd.	Wkg. V.	Each
	SN4195	2	600	2.44
	SN4196	4	600	3.35
	SN4197	1	1000	2.23
	SN4198	2	1000	2.91
	SN4199	1	1500	2.91

## HIGH VOLTAGE SERIES CAPACITORS

Cornell-Dubilier type DSTH for all high voltage filtering, coupling and by-pass applications in television. Exceptionally large safety factor, double case construction. Sturdy leads for mounting.



3000 Volts DC				5000 Volts DC			
Stock No.	Cap. MFD	Size	Each	Stock No.	Cap. MFD	Size	Each
SN3200	.0005	1/2 x 2 1/2	.56	SN3210	.0005	1 1/2 x 2 1/2	.62
SN3201	.001	3/4 x 2 1/2	.56	SN3211	.001	1 1/2 x 2 1/2	.62
SN3202	.005	1 1/2 x 2 1/2	.59	SN3212	.005	1 1/2 x 2 1/2	.65
SN3203	.01	1 1/2 x 2 1/2	.62	SN3213	.01	1 1/2 x 3 1/4	.68
SN3204	.05	1 1/2 x 3	.71	SN3214	.05	1 1/2 x 4 1/2	.78
4000 Volts DC				6000 Volts DC			
Stock No.	Cap. MFD	Size	Each	Stock No.	Cap. MFD	Size	Each
SN3205	.0005	3/4 x 2 3/4	.59	SN3215	.0005	3/4 x 2 3/4	.85
SN3206	.001	3/4 x 2 3/4	.59	SN3216	.001	3/4 x 2 3/4	.85
SN3207	.005	1 1/2 x 2 3/4	.62	SN3217	.005	1 1/2 x 3 1/4	.68
SN3208	.01	1 1/2 x 3	.65	SN3218	.01	1 1/2 x 3 1/4	.71
SN3209	.05	1 1/2 x 3 1/4	.73	SN3219	.05	1 1/2 x 4 1/4	.79

## PLASTICON CAPACITORS

Plastic film dielectric capacitors—smaller, lighter, more economical. Specified by Signal Corps, Air Corps and Navy for more severe operating conditions than other oil filled types. Extremely wide temperature range, greater safety factor, closer tolerances insure longer life. With mounting brackets. Six-month guarantee. Average weight saving 10% over low voltage types, as much as 30% on higher voltage types. Operate continuously at 220 degrees F.



## RECTANGULARS

No.	Mfd.	Volts	Size	Each	No.	Mfd.	Volts	Size	Each
SN2151	1	1000	2 3/8 x 1 3/4 x 1	\$2.36	SN2161	1	3000	4 x 2 1/2 x 1 3/4	\$7.11
SN2152	2	1000	4 x 1 3/4 x 1	3.17	SN2162	2	3000	4 x 3 3/4 x 1 3/4	9.06
SN2153	4	1000	4 x 2 1/2 x 1 3/4	3.85	SN2163	4	3000	4 1/2 x 3 3/4 x 2 1/4	12.51
SN2154	8	1000	4 1/2 x 3 3/4 x 1 3/4	5.43					

We can supply a complete line of PLASTICON capacitors ranging up to 10,000 volts. Write us for prices, stating complete specifications. Your correspondence will receive prompt reply.

## PLASTICON GLASS MIKES



Vacuum sealed hi-voltage capacitors. Tolerance ± 10%. Type A has 8-32 screw terminals, removable solder lugs, type B has 2" pigtails. Both can be mounted in fuse clips, both are Silicone filled.

No.	Mfr's. No.	Type	Mfd.	Volts	Dia.	Length	Each
SN1030	ASG15	B	.01	2000	1 1/2"	1 1/2"	1.32
SN1031	ASG17	A	.05	2000	1 1/2"	1 1/2"	1.65
SN1032	ASG18	A	.1	2000	1 1/2"	2 1/4"	1.88
SN1033	ASG30	A	.01	5000	3/4"	1 1/2"	4.26
SN1034	ASG33	A	.1	5000	1 1/2"	3 1/2"	5.35
SN1035	ASG40	B	.0005	10000	1 1/2"	1 1/2"	4.29

NOTE: Glass mikes are available in various capacities and voltages from 600 V. to 30,000 V. Write for literature and prices.

## PLASTICON LSG GLASS MIKES

RF Transmitting Condensers. 3500 WVDC, 7500 VDC test. Convenient screw type terminals.

No.	Mfd.	Size	Type	Each
SN1036	.00005	1 1/2 x 1 1/2	LSG500	.88
SN1037	.0001	1 1/2 x 1 1/2	LSG101	.88
SN1038	.00025	1 1/2 x 1 1/2	LSG251	.88
SN1039	.0005	1 1/2 x 1 1/2	LSG501	.88
SN1040	.001	1 1/2 x 1 1/2	LSG102	1.00
SN1041	.002	1 1/2 x 1 1/2	LSG202	1.44
SN1042	.005	1 1/2 x 1 1/2	LSG502	2.06
SN1043	.006	2 1/2 x 1 1/2	LSG602	2.20
SN1044	.01	2 1/2 x 1 1/2	LSG103	2.50

## CENTRALAB HI-KAP CERAMIC-X CAPACITORS

Longer life, better performance. Extremely small and compact. Negligible temperature coefficient. Flash tested at 1000 volts DC working volts 600.



Stock No.	Mfd.	Each	Stock No.	Mfd.	Each
SN1000	.00005	15c	SN1005	.00075	15c
SN1001	.0001	15c	SN1006	.001	15c
SN1002	.00015	15c	SN1007	.002	15c
SN1003	.00025	15c	SN1008	.005	18c
SN1004	.0005	15c	SN1009	.01	18c



**ERIE SILVER-MICA  
BUTTON CONDENSERS**



Midget silver-mica condensers. 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 mmf; and not less than 500 for below 50 mmf. Max. working voltage is 350 V. AC or 500 V DC. 370-CB has ring type metal shell, 3 soldering ears. High potential terminal at either end for feed-through connection. 370FF bolted with 3/48" screw.

**Type 370-CB**

No.	Cap. (mmf)	Each
5N2250	15 ± 1.5	.73
5N2251	50 ± 5	.73
5N2252	100 ± 10	.73
5N2253	150 ± 15	.73
5N2254	200 ± 20	.73
5N2255	300 ± 30	.73
5N2256	400 ± 40	.73
5N2257	500 ± 50	.73
5N2258	750 ± 150	1.47
5N2259	1000 ± 200	1.76

**Type 370-FF**

No.	Cap. (mmf)	Each
5N2260	15 ± 1.5	.73
5N2261	50 ± 5	.73
5N2262	100 ± 10	.73
5N2263	150 ± 15	.73
5N2264	200 ± 20	.73
5N2265	300 ± 30	.73
5N2266	400 ± 40	.73
5N2267	500 ± 50	.73
5N2268	750 ± 150	1.47
5N2269	1000 ± 200	1.76



**ERIE FEED THRU CERAMICONS**

New Type 362. Compact Ceramic Condenser with 20 gauge feed thru wire. 5/8" long body bolts to chassis on panel. 500 volts D.C. working, 1500 MMF.

5N2300..... **65c**

**ERIE TUBULAR TRIMMERS**

Type 532. New plastic dielectric trimmer. Provides easy and precise adjustment, stability of capacity. Voltage 500 V. DC. 5N2301—5-5 MMF ..... } **32c**  
5N2302—1.0-8 MMF .....

**ERIE HIGH VOLTAGE CERAMICONS**

Type 410. For television power supplies. Special design ceramic condenser with low loss molded case 1 1/8" dia. x 1 1/8" long. Conservatively rated at 10 K.V. for television filter and by-pass applications. Rod type terminals. Body design gives extra long creepage path. Capacity 500 MMF.

5N2303..... **1.03**

**NEW UTC TOROID PERMALLOY CHOKES**

New Permalloy dust toroid units are used in audio, carrier, and supersonic applications requiring high Q and great stability. HOA coils have maximum Q of 200 at 5000 cycles. HOB 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 to 1% tolerance.

**ERIE CERAMICONS—UTC INDUCTORS**



**ERIE NPO AND GP CERAMICONS**

These condensers consist of silver electrodes fired on ceramic dielectric. Physical Sizes: Insulated types—Style K .250"x.562", Style L .250"x.812", Style M .340"x1.328".

Has zero temperature coefficient. "Q" for NPO Ceramicons above 30 mmf is 1000 or higher. Below 30 mmf, "Q" decreases slightly as capacity decreases. Working voltage, 500 volts DC.

**NPO Ceramicons**

No.	Type	Mmf.	Each	No.	Type	Mmf.	Each
5N2270	K	3 ± 1	<b>29c</b>	5N2275	L	33 ± 3.3	<b>32c</b>
5N2271	K	5 ± 1		5N2276	M	50 ± 5	
5N2272	K	10 ± 1		5N2277	M	75 ± 7.5	
5N2273	K	20 ± 2		5N2278	M	100 ± 10	
5N2274	L	25 ± 2.5		5N2279	M	120 ± 12	

**GP1 and GP2 Ceramicons**

These types should be used for general purpose applications such as by-pass and blocking condensers, where temperature coefficient is not important. Type GP1 Ceramicons have a temperature coefficient; between 130 parts/million/°C and -1600 parts/million/°C. "Q" limit over 30 mmf is 1000 or greater. The capacity of Type GP2 Ceramicons will not decrease more than 20% nor increase more than 10% from their value at room temperature as the temperature is varied from -40°C to 85°C. Power factor will not exceed 3%. Rated voltage of GP1 Ceramicons is 500 V DC; GP2 Ceramicons, 350 V DC.

No.	Type	Mmf.	Each	No.	Type	Mmf.	Each
5N2280	GP1K	10 ± 2	<b>15c</b>	5N2288	GP2K	300 ± 60	<b>15c</b>
5N2281	GP1K	25 ± 5		5N2289	GP2K	500 ± 100	
5N2282	GP1K	50 ± 10		5N2290	GP2L	750 ± 150	
5N2283	GP1K	75 ± 15		5N2291	GP2L	1000 ± 200	
5N2284	GP1K	100 ± 20		5N2292	GP2L	1500 ± 300	
5N2285	GP1L	150 ± 30	5N2293	GP2M	2000 ± 400		
5N2286	GP2K	200 ± 40	5N2294	GP2M	3000 ± 600		
5N2287	GP2K	250 ± 50	5N2295	GP2M	5000 ± 1000		
							<b>18c</b>



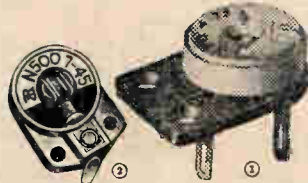
**ERIE STAND OFF CERAMICONS**

Ideal for R.F. by-pass to ground. May be used to support other circuit elements. Supplied in molded phenolic case for greater insulation qualities and mechanical strength. Both types mounted with 3-48 nut. Height above chassis when mounted—Type 323—19/32"—Type 324—27/32". Ideal for V.H.F. and U.H.F. applications.

No.	Cap. (mmf)	Type	No.	Cap. (mmf)	Type
5N2323	50	323	5N2326	1000	324
5N2324	100	323	5N2327	1500	324
5N2325	500	323			

Each..... **35c**

**ERIE CERAMICON TRIMMERS**



(1) Type 557 Ceramicon Trimmers

No.	Mmf.	Temp. Coef.	Each
5N2296	3-12	NPO	<b>73c</b>
5N2297	5-25	NPO	
5N2298	5-30	N750	
5N2299	8-50	N750	
5N2331	1.5 to 7	(NPO) TS2A	

(2) Type TS2A

No.	Mmf.	Temp. Coef.	Each
5N2332	3.0 to 12	(NPO)	<b>88c</b>
5N2333	3 to 13	(N300)	
5N2334	5 to 20	(N300)	
5N2335	4 to 30	(N500)	
5N2336	7 to 45	(N500)	

**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 1 1/4" long, 1 1/4" wide, 1 1/4" high. Mounting centers on terminal board side 1 1/4" by 1 1/4", weight—5 1/2 ozs.

No.	Type	Henrys	DC Ma. Max.	Each
6N5434	HOA-2	12.5 Mh.	400	6.86
6N5435	HOA-4	30 Mh.	160	6.35
6N5436	HOA-6	80 Mh.	70	7.84
6N5437	HOA-8	200 Mh.	65	8.82
6N5438	HOA-10	500 Mh.	40	9.80
6N5439	HOA-12	1.25 Hy.	26	10.78
6N5440	HOA-13	2. Hy.	20	10.78
6N5441	HOB-5	5 Mh.	60	16.66
6N5442	HOB-7	2. Hy.	30	18.62
6N5443	HOB-10	12. Hy.	11	21.56

No.	Type	Mean Hys.	Ea.	No.	Type	Mean Hys.	Ea.
6N5444	VI-C1	.0085	<b>6.34</b>	6N5456	VI-C12	1.3	<b>8.07</b>
6N5445	VI-C2	.013		6N5457	VI-C13	2.2	
6N5446	VI-C3	.021		6N5458	VI-C14	3.4	
6N5447	VI-C4	.034		6N5459	VI-C15	5.4	
6N5449	VI-C5	.053		6N5460	VI-C16	8.5	
6N5450	VI-C6	.084	6N5461	VI-C17	13.	<b>9.53</b>	
6N5451	VI-C7	.13	6N5462	VI-C18	21.		
6N5452	VI-C8	.21	6N5463	VI-C19	33.		
6N5453	VI-C9	.34	<b>8.07</b>	6N5464	VI-C20	52.	<b>10.08</b>
6N5454	VI-C10	.54		6N5465	VI-C21	83.	
6N5455	VI-C11	.85					



# THORDARSON REPLACEMENT XFORMERS



**THORDARSON REPLACEMENT OUTPUT TRANSFORMERS**  
 BAH type mounting, measure 2 3/4" x 1 1/4" x 1 1/8" with mtg. ctrs. of 2". Weigh 1/2 lb. except type TS-24S61 which weighs 1 lb. and has mtg. ctrs. of 2 3/8". Class A operation 3-4 ohms secondary.

### Service Output Transformers

No.	Type	Pri. Imp.	Pri. Ma.	Watts	Each
6N2143	TS-24S50	2000	55	5	82c
6N2144	TS-24S51	5000	40	5	91c
6N2145	TS-24S52	7000	30	5	94c
6N2146	TS-24S54	15000	10	5	97c

### Universal Service Replacements for Single and push-pull types

No.	Type	Pri. Imp.	Pri. Ma.	Sec.	Watts	Each
6N2147	TS-24S60	4M, 7M, 8M, 10M, 14M, C.T.	35	.1 to 29 ohms	4	1.41
6N2148	TS-24S61		40		8	1.53

### UNIVERSAL REPLACEMENT POWER TRANSFORMERS

Adjustable mounting brackets. All leads RMA color-coded. 117V 50-60 cycle input. Mtg. type AGF. \*Mtg. type GGV.

Stock No.	Type No.	Plate V	MA	Rect. Fila.	Fila. No. 2	Fila. No. 3	Each
6N2081	T22R00	250-0-250	40	5V-2A	6.3VCT-2A		4.06
6N2083	T22R01	275-0-275	50	5V-2A	6.3VCT-3.5A		4.12
6N2084	T22R02	300-0-300	70	5V-2A	6.3VCT-3A		4.91
6N2085	T22R04	300-0-300	90	5V-2A	6.3VCT-3.5A		5.03
6N2086	T22R05	300-0-300	120	5V-3A	6.3VCT-5A		5.59
6N2087	T22R06	325-0-325	150	5V-3A	6.3VCT-5A		6.44
6N2088	T22R07	350-0-350	200	5V-3A	6.3VCT-6A		7.29
6N2089	T22R08	250-0-250	40	5V-2A	2.5VCT-4A		4.06
6N2090	T22R09	275-0-275	50	5V-2A	2.5VCT-7.5A		4.41
6N2091	T22R10	325-0-325	85	5V-2A	2.5VCT-9A	2.5VCT-3.5A	5.76
6N2092	T22R11	325-0-325	120	5V-3A	2.5VCT-12.5A	2.5VCT-5A	6.44
6N2096	T22R30*	275-0-275	50	5V-2A	6.3VCT-2.5A		4.91
6N2097	T22R31*	360-0-360	80	5V-2A	6.3VCT-2.5A		5.59
6N2098	T22R32*	350-0-350	110	5V-2A	6.3VCT-3A	6.3VCT-3A	6.26
6N2099	T22R33*	375-0-375	160	5V-3A	6.3VCT-5A		7.11
6N2100	T22R34*	385-0-385	225	5V-3A	6.3VCT-5A		9.14
6N2101	T22R35*	400-0-400	340	5V-6A	6.3VCT-7A		9.70

### AUDIO INTERSTAGE TRANSFORMERS

No.	Type	Mtg.	Application	Ratio	Each
6N2008	T20A16	BAH	Sgl. pl. to sgl. or PP grids	1:2	1.70
6N2009	T20A17	FGV	Sgl. pl. to sgl. or PP grids	1:2	2.23
6N2010	T20A19	BAH	Sgl. or PP pl. to sgl. or PP grids	1:3	2.09
6N2011	T20A22	BAH	Sgl. pl. to sgl. or PP grids	1:3	2.50
6N2012	T20A23	FGV	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 sgl. or PP grids	1:1.41	5.88

\*Fully potted; hum-bucking coil and core.

### UNIVERSAL CHOKES

Newly designed Universal Chokes replace swinging or smoothing types. Voltage regulation not affected. Provides more inductance throughout current range decreasing ripple voltage. \*Tuned audio circuit reactor.

Stock No.	Type No.	Inductance Hy.		Current MA		DC Ohms	Mtg. Type	Each
		Rated	Max.	Rated	Max.			
6N2015	T20C50	350	75	5	25	5500	BAH	2.03
6N2016	T20C51	35	15	15	25	1850	BAH	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	7	4	300	375	60	GGV	5.23
6N2022	T20C57	10	6	500	600	65	PUV	20.29
6N2023	T20C58*	.75	.75	0	10	30	BAH	1.35

### DRIVER TRANSFORMERS

Stock No.	Type No.	Input Tubes	Output Tubes	Ratio	Pri. MA	Mtg. Type	Each
6N2028	T20D75	1-30, 1-49, 1-6C5, 1HA (single pl.)	1J6, 19, 2-30, 2-49 (class B)	2.4:1	3	BAH	1.62
6N2029	T20D76	1-6N7, 6A6, 53, 1-78 (sgl. pl.)	1-6N7, 6A6, 53 (class B)	5.2:1	7	BAH	1.70
6N2030	T20D77	1-89, 6F6, triode 1-6C5 (sgl. pl.)	79, 2-10, 59 (class B) 25L6 (class B)	2.5:1	30	FGV	2.53
6N2031	T20D78	2-6F6, Triode 2-6A6, 83	2-6F6 (class AB.) 2-6L6 (class AB.)	4:1	40	GGV	3.38
6N2032	T20D79	2-6N7 (sgl. or PP pri.)	2-6N7 (PP class B grids)	5.2:1	30	FGV	2.88
6N2033	T20D80	2-2A3, 45, 6L6 (PP pri.)	203A, T20, 805, 100TH, T55 (cl. B)	3.2:1	40	GGV	4.00
6N2034	T20D81	PP 845, etc. (PP pri.)	PP 805, 833, etc. (PP Cl. B grids)	5:1	50	GGV	5.09
6N2035	T20D82	2-2A3, 45, 6L6 (PP pri.)	PP 805, 833, etc. (PP Cl. B grids)	3.2:1	60	GGV	4.41
6N2036	T20D83	Pri. 500 ohm line	Class B Grids	Ratio*		PUV	15.55

\*1:75, 1:85, 1:1.4, 1:1.25, 1:1.75, 1:2, 1:2.25, 1:2.5, 1:2.75, 1:3.

### DUAL TONE CONTROL

An effective tone compensating network for sound systems. Treble and bass frequencies attenuated or accentuated independently. For smooth control over wide range of audio frequencies. T20C74 Tone Control Choke with Hum-bucking Coil and Core. DC ohms 220. Test volts 500. Mtg. Type RAV.

6N2027							
R1068-X	Dual Tone Control Potentiometer for above circuit.						2.70
6N2149							2.44

### FEEDBACK CONTROL TRANSFORMER

T20A26 is the control element in a variable audio inverse feedback system, basis of compressor-expander circuit. Variable gain is produced by automatically controlling inverse feedback voltage. Superior to DC grid bias control, response faster, harmonic distortion does not rise. Transformer comes with complete details of 10 Watt hi fidelity amplifier incorporating above circuit. Mtg. type RTV.

6N2026							5.59
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### VIBRATOR POWER TRANSFORMERS

No.	Type	Primary	Secondary	Mtg. Type	Each
6N2093	T22R20	6-8V DC	250V DC 50 ma	CAV	3.73
6N2094	T22R22	6-8V DC	325V DC 75 ma	CAV	4.41
6N2095	T22R24	117V AC	325V DC 195 ma 6.3V CT 4.75 A	GGV	8.47

### AUDIO INPUT TRANSFORMERS

Stock No.	Type No.	Mtg.	Application	Turns Ratio	Each
6N2000	T20A00	BAH	Line or mic. to single or PP grids	1:10	1.85
6N2001	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	2.85
6N2005	T20A05	RTV	Line to PP grid mic. to single or PP grids	1:10	6.23
6N2004	T20A04	BAH	V.C. or low imp. mic. to grid	1:80	1.70

### Transceiver Transformer

Stock No.	Type No.	Mtg.	Application	Turns Ratio	Each
6N2003	T20A03	BAH	Single pl. to grid Line or mic. to grid	1:3.25	2.36

### OUTPUT TRANSFORMERS

#### Low Level Output Transformers (BAH)

Stock No.	Type No.	Application	Pri. Imp.	Sec. Imp.	Power Output	Each
6N2103	T22S45	Sgl Pl to VC	1500 to 3000	3.2 to 4	3	1.35
6N2104	T22S46		3000 to 6000	3.2 to 4	3	1.41
6N2105	T22S47		6000 to 12000CT	3.2 to 4	3	1.62
6N2106	T22S48		12000 to 25000CT	3.2 to 4	3	1.73
6N2107	T22S56	Sgl & PP	8000 or 10000CT		8	2.44
6N2108	T22S53	Pl to VC	5000 or 7000CT	3.2 to 4	8	2.44
6N2109	T22S60		2500 or 4000CT	6 to 8	8	2.53

#### Special Duty Hi-Level Output Transformers (GGV)

6N2111	T22S64		10000CT		25	4.23
6N2112	T22S66		8000CT	3.2 to 4	25	4.23
6N2113	T22S68	Sgl & PP Pl	6500CT	6 to 8-	25	4.41
6N2114	T22S70	to Line & VC	5000CT	15-250-500	25	4.53
6N2115	T22S72		3000CT		25	4.53
6N2118	T22S78		3300CT		60	6.44

#### Universal Replacement to Multiple Voice Coil (BAH)

6N2116	T22S74	Sgl or PP Pl to VC	14000-10000-8000 6600-5000-3000	1 to 30	25	3.73
6N2110	T22S82	Sgl Pl to VC	4000-3000-2500 2000-1500	1 to 30	8	2.50
6N2124	T22S86	Sgl Pl or	14000CT-8000CT	3.2 to 4	3	1.85
6N2125	T22S87	PP Pl to VC	3500-2000	6 to 8	6	2.03
6N2126	T22S88				8	2.20

### UNIVERSAL AND SPECIAL DUTY

Stock No.	Type No.	Application	Pri. Imp.	Sec. Imp.	Power Output	Each
6N2117	T22S76 (BAH)	Univ. or PP Tubes to Line	14000-12000-10000-8000-5000-3000CT	500 to 600	25	4.00
6N2127	T22S90 (FGV)	Sgl or PP Pl	20000CT	125-200-500 to 600CT	3	3.17
6N2128	T22S92 (RTV)	Sgl or PP Pl Hum-bucking Coil and Core	20000CT	125-200-500 to 600CT	6.35	

#### Matching Line or Lines to Voice Coil (BAH)

6N2119	T22S80	Sgl Line to VC	500 to 600		8	2.59
6N2120	T22S82	Multiple			25	4.20
6N2121	T22S83	Lines to	2000-1500-	3.2 to 4	15	3.23
6N2122	T22S84	VC	1000-500	6 to 8-15	5	2.65
6N2123	T22S85				3	2.41



## AUDIO TRANSFORMERS (2)

No.	Type	Description of Unit	Size	Each
6NS514	R-33	1 Plate to 1 Grid. Ratio 4:1	B	1.71
6NS515	R-34	1 Plate to 2 Grids. Ratio 2:1	B	1.76
6NS516	R-35	Mike to 1 Grid. Ratio 17:1	B	2.17
6NS517	R-56	1 Plate to 2 Grids. Ratio 2:1	D	2.17
6NS518	R-37	1 Plate to 2 Grids. High Fidelity. Ratio 2 1/2:1	F	3.41
6NS519	R-36	Driver (30, 49, etc.) to Class B 19, 79, 89 Grids.	B	2.17
6NS520	R-37	R.F. Output. Class B19, 49, 79, 89 plates to 3500, and 5000 ohms.	B	2.29
6NS521	R-58	5-Watt Universal Output. Any single tube to any voice coil from .1 to 30 ohms.	A	1.76
6NS522	R-38A	6-Watt Univ. Out. Any tubes to .1 to 30 ohms.	A	1.76
6NS523	R-59	10-Watt Univ. Out. Any tubes to .1 to 30 ohms.	B	2.06
6NS524	R-60	15-Watt Univ. Out. Any tubes to .1 to 30 ohms.	D	2.17
6NS525	R-39	10-Watt Line Matching: 250, 500, 1500 ohms to 2, 8, 15 ohm voice coil.	B	2.23
6NS526	R-40	25-Watt Line Matching: 250, 500, 1500 ohms to 2, 8, 15 ohm voice coil.	C	3.23

## FILTER AND AUDIO CHOKES (3)

No.	Type	Henrys	Ma.	Ohms D.C.	Size	Each
6NS527	R-55	10	35	300	A	1.03
6NS528	R-14	12	40	250	B	1.23
6NS529	R-15	15	30	450	B	1.23
6NS530	R-16	20	30	600	B	1.23
6NS531	R-17	25	30	1000	D	1.65
6NS533	R-18	10	75	250	D	1.65
6NS534	R-19	15	100	450	E	2.29
6NS535	R-20	8	160	100	F	2.53
6NS537	R-21	5/25	160	100	F	2.53
6NS538	R-22	500	5	6000	D	2.29



## VARITAP UNIVERSAL MOUNT TRANSFORMERS AND CHOKES (1)

VARITAP audios represent the acme in replacement transformer development. The double shells and universal mounting brackets are finished in high lustré black. All mounting positions incorporate long slots for maximum flexibility. All coils are well shielded, and have tropical wetproof impregnation. Shpg. wt. each, 3 lbs.

No.	Type	Description	Size	Ea.
6NS540	R-23	1 Plate to 1 Grid. Ratio 3 1/2:1	G	2.41
6NS541	R-24	1 Plate to 2 Grids. Ratio 2:1	G	2.53
6NS542	R-25	2 Plates to 2 Grids. 1.5:1 step-up for Class A triodes, 1.5:1 step-down for 6L6's, 2A3's, 2A5's, etc.	G	2.65
6NS543	R-26	Driver, 1 Plate to 2 Grids, Single 42, 2A5, 6F6, 45 to AB 6L6's, 42's, 2A5's, etc.	G	2.65
6NS544	R-27	15-Watt Output. All tubes to .1-30 ohm voice coils.	G	2.41
6NS545	R-28	35-Watt Output. All tubes to .1-20 ohm voice coils.	H	3.41
6NS546	R-29	Single or double button mike or line to 1 grid.	G	2.53
6NS547	R-31	Filter Choke. 10 Henrys, 80 ma., 250 ohms.	G	2.06
6NS548	R-32	Filter Choke. 10 Hy., 150 ma., 100 ohms.	H	2.94

## MOUNTING DIMENSIONS OF ABOVE UNITS

Size A: 2 1/2" w., 1 3/8" d., 1 3/8" h.    Size E: 3 3/4" w., 1 3/4" d., 2 5/8" h.  
 Size B: 2 7/8" w., 1 3/8" d., 1 1/2" h.    Size F: 4 1/8" w., 2" d., 2 3/8" h.  
 Size C: 4 1/8" w., 2 1/4" d., 2 3/8" h.    Size G: 2 3/8" w., 1 3/8" d., 2" h.  
 Size D: 3 1/8" w., 1 9/8" d., 2" h.    Size H: 3" w., 2 3/4" d., 2 1/2" h.

## UTC LINEAR STANDARD TRANSFORMERS

High permeability cores and precisely balanced interleaved windings guarantee uniform frequency response, minimum hum pickup and negligible wave form distortion. Vacuum-baked, impregnated coils. Minimum distributed capacity and leakage reactance. Rugged construction. Cases have top and bottom mounting facilities. Units employed in very low level applications have quadruple alloy shielding.

## LOW IMPEDANCE TO GRID TRANSFORMERS

LS-10, LS-10X, LS-14, LS-14X to single grid. LS-12 to PP grids. LS-26, for bridging line to single or PP grids. "X" indicates quadripole alloy magnetic shield for minimum hum pickup. In LS-1 case: 3 1/8" long, 2 3/8" wide, 3/4" high. Mtg. centers, 1 1/8" x 2 7/8". Shpg. wt. 4 lbs.

Primary Impedance 50, 125-150, 200, 250, 333, 500-600 ohms.

No.	Type	Secondary Ohms	±1 db	Max. Level	Each
6NS401	LS-10	60,000, 2 sections	20-20,000	+15 DB	14.70
6NS402	LS-10X	50,000	20-20,000	+14 DB	18.82
6NS403	LS-12	120,000, 2 sections	20-20,000	+15 DB	16.46

Primary Impedance 2.5, 5.5, 10, 15, 22, 30, 38, 60 ohms.

No.	Type	Secondary Ohms	±1 db	Max. Level	Each
6NS407	LS-14	60,000, 2 sections	20-20,000	+15 DB	16.46
6NS408	LS-14X	50,000	20-20,000	+14 DB	20.58

Primary Impedance, 5000 ohms.

No.	Type	Secondary Ohms	±1 db	Max. Level	Each
6NS409	LS-26	60,000, 2 sections	15-20,000	+20 DB	14.70

## PLATE TO LINE TRANSFORMERS

LS-27 and LS-50, single plate to multiple line. LS-51, for push-pull low-level plates to multiple line. Secondary impedances: 50, 125, 200, 250, 333, 500/600 ohms. In LS-1 case: 3 1/8" long, 2 3/8" wide, 3/4" high. Mounting centers, 1 1/8" x 2 7/8". Shipping weight 4 lbs.

No.	Type	Primary	±1 db From:	Max. Level	Each
6NS431	LS-27	15,000 ohms	30-12,000 cps	20 DB	14.11
6NS432	LS-50	15,000 ohms	20-20,000 cps	17 DB	
6NS433	LS-51	30,000 ohms	20-20,000 cps	20 DB	

## PLATE AND FILAMENT TRANSFORMER

Type LS-70. For high power amplifier service. Maximum reliability, low temperature rise, high insulation factor. Primary has 6 taps ranging from 100-125 volts (50-60 cycles). High voltage 425-375-0-375-425 at 200 MA, and 70-0-70 at 50 MA. Five filament windings: 5 V.C.T.-3A and 2A; 2.5 V.C.T.-10A; 6.3 V.C.T.-1A and 3A. In LS-3 case, 5 1/8" long, 5" wide, 4 1/8" high. **19.99**

## 2-SECTION FILTER CHOKES

Type LS-90. Filter choke with hum-bucking tap. Inductance in series 50 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: 4 7/8" long, 3 1/2" wide, 4 7/8" high. Mounting centers: 2 1/8" x 3 1/8". **8.23**

6NS411—Shipping weight 9 lbs.



## INTERSTATE AUDIO TRANSFORMERS

Response ±1 db, 20-20,000 cps. Hum-pickup reduction compared to uncased type, -74 db, except LS-19 and LS-22, -50 db. In LS-1 case: 3 1/8" long, 2 3/8" wide, 3/4" high. \*LS-2 case, 4 7/8" x 3 1/2" x 4 1/8". Shpg. wt. 4 lbs., except LS-22, 9 lbs.

Primary Impedance, 15,000 ohms. For Single Plate.

No.	Type	Use	Secondary	Max. Lev.	Each
6NS417	LS-19	To PP grids	95,000 ohms; 1 1/4:1	+17 DB	14.11
6NS418	LS-20	To grid	60,000 ohms; 2:1	+14 DB	12.35
6NS413	LS-21	To PP grids	135,000 ohms; 3:1	+14 DB	14.11

Primary Impedance, 30,000 ohms. P. to P. for Push-Pull Plates.

No.	Type	Secondary	Max. Lev.	Each	
6NS419	LS-22	To PP grids	80,000 ohms; 1.6:1	+26 DB	18.23
6NS420	LS-25	To PP grids	50,000 ohms; 1.3:1	+17 DB	16.46

## OUTPUT TRANSFORMERS—LINE TO VOICE COIL

The multiple taps of these units provide a wide range of impedances for every application. Have large cores and precisely balanced, interleaved coil structures. Unequalled response (+1 db, 25-20,000 cps) with minimum harmonic distortion. In LS-2 case: 4 7/8" long, 3 1/2" wide, 4 7/8" high. Shpg. wt. 9 lbs. \*In LS-3 case: 5 1/8" x 5" x 4 1/8"; 17 lbs. †Push-pull, fixed bias for cathode follower drive.

No.	Type	Pri. P. to P.	Secondary	Watts	Each
6NS421	LS-52	8,000 ohms	500 to 1.2	15	16.46
6NS422	LS-54	8,000 ohms	30 to 1.2	15	11.76
6NS412	LS-55	5,000 & 3,000	500 to 1.2	20	16.46
6NS423	LS-57	5,000 & 3,000	30 to 1.2	20	11.76
6NS424	LS-58*	2,500 & 1,500	500 to 1.2	40	29.40
6NS425	LS-60A*†	4,600	15 to 1.2	30	20.58
6NS426	LS-61	10,000 & 6,000	500 to 1.2	15	16.46
6NS427	LS-62A*†	4,600	500, 125	30	20.58
6NS428	LS-6L*	9,000 ohms	500 to 1.2	30	24.70
6NS398	LS-6L3*	9,000 ohms	30 to 1.2	30	16.46
6NS429	LS-6L4.	3,800 & 4,500	500 to 1.2	55	29.40

## MIXING TRANSFORMERS

For mixing; for feeding low impedance mike, pickup or multiple line to multiple line. Response, ±1 db, 20-20,000 cps. Both primary and secondary have 6 taps, 50-500/600 ohms. In LS-1 case: 3 1/8" long, 2 3/8" wide, 3/4" high. Shpg. wt. 4 lbs.

6NS405—LS-30. Maximum level, +17 db. Relative hum-pickup reduction compared to uncased type, -74 db.... **14.70**

6NS430—LS-30X. Maximum level, +15 db. Quadruple alloy shield gives rel. hum-pickup reduction of -92 db. **18.80**



# STANCOR REPLACEMENT TRANSFORMERS



## STANCOR "HF" AUDIO TRANSFORMERS

Wide range of frequency response = 1.5 db from 30. 15,000 CPS. Minimum distortion due to proper coil and core design. Hum pickup minimized by use of balanced hum-bucking construction and high permeability magnetic shielding. Special coil construction reduces leakage inductance and distributed capacity. Vacuum impregnated and potted in cases with four tapped holes for top or bottom mounting. Stud-type terminals are provided on a phenolic terminal panel. HF-1 case measures 3 1/4 x 2 1/4 x 3 1/4", HF-2 case is 4 1/4 x 3 1/4 x 4 1/4". All are in HF-1 Case except HF-65 is in HF-2 Case.

No.	Type	Pri. Imp.	Sec. Imp.	Each
6N1870	HF-20	50, 125, 200, 250, 333, 500-600 ohms all, in two sections.	60,000 ohms over-	14.41
6N1871	HF-20X	50, 125, 200, 250, 333, 500-600 ohms	50,000 ohms	18.37
6N1872	HF-22	50, 125, 200, 250, 333, 500-600 ohms	120,000 ohms over-	16.17
6N1873	HF-29	Sgl. pl. to pp grids pri. 15,000 ohms	95,000 ohms over-	13.82
6N1874	HF-40	Low imp. mixer pri. 15,000 ohms	50, 125, 200, 250, 333, 500-600 ohms	14.41
6N1875	HF-65	pp output pri. 3000/5000 ohms plate to plate	1.2, 2.5, 5, 7.5, 10, 15, 20, 30, 50, 125, 200, 250, 333 or 500 ohms.	16.17

Compact Audio Units. Dimensions, 2x1 1/2 x 1 1/2". Wt. Lbs., 0.5.

No.	Type	Application	Impedance	Each
6N1876	WF-20	Low Impedance Mike, Pickup or Multiple Line to Single Grid.	Pri—50, 125, 200/250, 333, 500/600. Sec—50,000.	8.53
6N1877	WF-21	Low Impedance Mike, Pickup or Multiple Line to Single or P.P. Grids.	Pri—50, 200, 500. Sec—50,000.	9.11
6N1878	WF-30	Low Impedance Mixer, Mike, Pickup or Multiple Line to Single Line.	Pri—50, 125, 200/250, 333, 500/600. Sec—50, 125, 200/250, 333, 500/600.	8.53
6N1879	WF-34	Multiple Line to Single Plate to Multiple Line.	Pri—15,000. Sec—50, 125, 200/250, 333, 500/600.	8.53

## TUBE TO LINE

No.	Type	Application	Impedance Ohms	Mtg.	Ea.
6N1597	A-3842	PP Pl to line	Pri—14M, 12M, 10M, 8MCT Sec—500	J	3.85
6N1599	A-3250	Sgl Pl or PP Pl to line	Pri—20M, 10M, 5M. Sec—20M CT. Sec—500, 333, 200, 125, 50	Q	2.65

## LINE TO VOICE COIL

No.	Type	Application	Impedance Ohms	Mtg.	Ea.
6N1642	A-3820	L to VC	Pri—2M, 1500, 1M, 500. Sec—15, 8, 4.	D	5.85
6N1641	A-3818	L to VC	Pri—1500, 1M, 500. Sec—15, 8, 4.	J	2.79
6N1764	A-3882	L to VC	Pri—500, 333, 250. Sec—15, 8, 4.	D	4.26
6N1765	A-3883	L to VC	Pri—500. Sec—15, 8, 4.	J	2.29
6N1595	A-3837*	L to L or VC	Pri—500. Sec—8, 4, 2.65, 2.35, 2, 1.5, .7, .5, .3, 2, .1, .05.	J	2.94
6N1635	A-7947	L to VC	Pri—2M, 1500, 1M, 500. Sec—6.	Q	1.71
6N1636	A-7949	L to VC	Pri—2M, 1500, 1M, 500. Sec—6.8.	J	2.03
6N1596	A-3838†	L to VC	Pri—500, 250, 175, 150, 140, 125, 100, 85, 45, 14, 4, 7.	B	3.38

\*Designed to operate one or more speakers in parallel across a 500 ohm line.  
†Designed to operate one or more speakers in series across a 500 ohm line or to match unequal lines.

## AUDIO CHOKES

\*Type A Mtg., † Type TD

No.	Type	Hys.	Ma.	Ohms	HxWxL	Ea.
6N1623	C-1003*	16	50	580	2x3 1/4 x 1 1/4"	1.26
6N1859	C-2300†	70	.5	5400	2 1/4 x 2 3/4 x 2 1/4"	2.79
6N1770	C-2301†	135	5	6500	2 1/4 x 2 3/4 x 2 1/4"	3.06

## HIGH FIDELITY OUTPUT TRANSFORMERS

Flat frequency response of ± 1.5 db from 30 to 15,000 CPS. Extremely low intermodulation distortion over entire frequency range. Type "C" mounting. Dimensions, 4 1/4 x 3 1/4 x 4 1/4".

No.	Type	Pri. Imp. CT	Sec. Imp.	Max. Pri. DC per Side	Watts	Each
6N1905	A-8050	1500	8, 16	80	50	14.20
6N1906	A-8051	2500	8, 16	150	50	14.20
6N1907	A-8052	3000	8, 16	75	25	12.80
6N1908	A-8053	5000	8, 16	75	25	12.80
6N1909	A-8054	9000	8, 16	75	25	12.80
6N1910	A-8060	1500	500	80	50	14.20
6N1911	A-8061	2500	500	150	50	14.20
6N1912	A-8062	3000	500	75	25	12.80
6N1913	A-8063	5000	500	75	25	12.80
6N1914	A-8064	9000	500	75	25	12.80

## CRYSTAL RECORDER OUTPUT

Type A mounting.

No.	Type	Application	Watts	Each
6N1591	A-3853	Sgl 7M ohm P1 to 70M ohm Crystal Cutter or 4 ohm VC	5	2.65
6N1592	A-3854	Sgl 7M ohm P1 to 70M ohm Crystal cutter and 4 ohm VC	10	2.79
6N1593	A-3859	PP 10M ohm P1 to 70M crystal cutter or 4 ohm VC.	5	2.65
6N1594	A-3860	PP 10M ohm P1 to 70M ohm crystal cutter and 4 ohm VC.	10	3.23

## OUTPUT TRANSFORMERS

Single Plate to Voice Coil. Class A.

No.	Type	Impedance in Ohms		Max. Watts	Mtg.	Each
		Pri.	Sec.			
6N1677	A-3865	1,500	6, 4, 2	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	4	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
6N1649	A-3881	15,000	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 †—AB1; ‡—AB2, AB1; §—B, AB2; \*—A & B.

No.	Type	Impedance	Watts	Mtg.	Each	
6N1639	A-3802†	3,800/3,300	500, 250, 8, 4	75	C	6.76
6N1672	A-3851*†	4,400	500, 250, 15, 8, 4	30	C	5.23
6N1762	A-3872	5,000	15, 8, 4	18	TD	3.53
6N1661	A-3800	5,000	500, 250, 15, 8, 4	30	C	4.65
6N1658	A-3307†	6,000	500, 15, 8, 4	30	C	4.94
6N1662	A-3801†	6,600	500, 250, 15, 8, 4	35	C	5.41
6N1590	A-3855	7,000	2,000, 10	5	TD	3.32
6N1647	A-2201	8,000	6	10	A	1.82
6N1657	A-3304	10,000/7,000	500, 15, 8, 4	25	C	4.23
6N1644	A-3301	3,000	500, 15, 8, 4	30	C	4.53
6N1660	A-3311	10,000	500, 15, 8, 4	25	C	4.41
6N1667	A-3831	10,000	8, 4, 2	5	A	1.59
6N1656	A-3303*	14,000	500, 15, 8, 4	20	C	4.12
6N1572	A-2312	14,000	4	10	A	1.65
6N1598	A-3496	14,000	4	5	A	1.38
6N1676	A-3857	25,000	4	5	A	1.32

\*Tertiary winding to provide 10% inverse feedback.

## UNIVERSAL OUTPUT

No.	Type	Application	Mtg.	Each
6N1675	A-3856	Sgl or PP P1 (4M to 14M) to VC	O	1.53
6N1663	A-3822	Sgl P1 (7M to 10M) to VC	O	1.29
6N1669	A-3848	Sgl P1 (7M to 16M) to VC	O	1.53
6N1637	A-3823	Sgl or PP P1 (4M to 14M) to VC	O	1.62
6N1671	A-3850	Sgl or PP P1 (4M to 14M) to VC	J	1.73
6N1665	A-3825	Sgl P1 (1,500 to 4,500) to VC	O	1.91
6N1664	A-3824	Sgl or PP P1 (6M to 10M) to VC	O	2.41
6N1670	A-3849	Sgl P1 (1,500 to 10M) to VC	O	1.53
6N1763	A-3880	PP P1 (4M to 14M) to VC	O	2.88
6N1574	A-2855	PP P1 (4M to 14M) to VC	O	2.47
6N1678	A-3890	PP P1 (4M to 14M) to VC	TD	3.82
6N1673	A-3852	PP P1 (4M to 14M) to VC	O	2.09
6N1761	A-3870	PP P1 (4M to 14M) to VC	J	2.20
6N1666	A-3830	PP P1 (3M to 10M) to VC	J	2.88



# STANCOR REPLACEMENT TRANSFORMERS



## REPLACEMENT POWER TRANSFORMERS

Most popular sizes and ratings of 2.5 and 6.3 volt types are represented below. Units in type "C" or "G" mounting are especially adaptable to sub-panel style wiring. 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.			
6N1706	P-6001	650	40	5.0CT	2.0	2.5CT	4.0	3x2 1/2"	3	3.53
6N1712	P-6002	700	50	5.0CT	2.0	2.5CT	7.25	3x3 1/2"	3	4.12
6N1719	P-6009	550	70	5.0CT	3.0	2.5CT	10.5	3 3/8 x 3 1/4"	4	5.29
						5.0CT	0.5			
6N1715	P-6005	700	70	5.0CT	3.0	2.5CT	9.0	3 3/8 x 1 3/4"	5	4.56
						2.5CT	3.5			
6N1713	P-6003	700	70	5.0CT	2.0	2.5CT	9.0	3 3/8 x 3 1/2"	4	4.91
6N1714	P-6004	700	90	5.0CT	3.0	2.5CT	12.5	3 3/4 x 3"	4	4.56
6N1717	P-6007	800	110	5.0CT	3.0	2.5CT	15.0	3 3/4 x 3 3/8"	5	6.03
						2.5CT	3.5			
6N1716	P-6006	700	120	5.0CT	3.0	2.5CT	12.5	3 3/4 x 3 3/8"	6	6.23
						2.5CT	3.5			
6N1785	P-6289	420	40	5.0CT	2.0	6.3CT	2.0	2 1/2 x 3"	3	4.12
6N1735	P-6297	480	40	5.0CT	2.0	6.3CT	2.0	3x3 1/2"	3	3.97
6N1720	P-6010	650	40	5.0CT	3.0	6.3CT	2.0	3x2 1/2"	2	3.38
6N1786	P-6119	600	55	5.0CT	2.0	6.3CT	2.7	3x2 1/2"	3	4.06
6N1746	P-6348	480	60	5.0CT	3.0	6.3CT	2.75	2 1/2 x 2 1/2"	2	3.50
6N1787	P-6120	630	70	5.0CT	3.0	6.3CT	3.5	3 3/8 x 3 1/2"	4	4.53
6N1721	P-6011	700	70	5.0CT	3.0	6.3CT	2.5	3x3 1/2"	4	4.29
6N1741	P-6112	580	90	5.0CT	3.0	6.3CT	2.8	3 3/8 x 3 1/2"	4	4.94
6N1722	P-6012	700	90	5.0CT	3.0	6.3CT	3.5	3 3/8 x 3 1/2"	4	4.53
6N1723	P-6013	700	120	5.0CT	3.0	6.3CT	4.7	3 3/8 x 3 1/2"	5	5.03
6N1743	P-6313	580	125	5.0CT	3.0	6.3CT	4.5	4 1/8 x 3 1/2"	6	5.59
6N1724	P-6014	750	150	5.0CT	3.0	6.3CT	5.0	3 3/4 x 3 3/4"	6	6.17
6N1744	P-6314	700	200	5.0CT	3.0	6.3CT	5.5	4 1/8 x 3 1/2"	8	7.23
6N1726	P-6165	800	200	5.0CT	4.0	6.3CT	5.5	4 1/8 x 4 1/8"	9	7.38
6N1745	P-6315	740	275	5.0CT	3.0	6.3CT	7.0	4 1/8 x 4 1/8"	9	9.41
6N1718	P-6008	750	180	5.0CT	3.0	6.3CT	6.0	4 1/8 x 3 3/8"	6	6.85
						6.3CT	3.3			

## INPUT TRANSFORMERS

Microphone or Line to Line.

No.	Type	Impedance	Mtg.	HxWxD	Each
6N1540	A-4350*	Pri—500/333/200/125/50 Sec—500/333/200/125/50	Q	2x3 1/4 x 1 3/4"	3.29

\*Has dual primary. When properly connected, the 500 and 200 ohm sections are center-tapped.

Microphone, Pickup or Line to Grid.

No.	Type	Impedance	Mtg.	HxWxD	Ea.
6N1543	A-4705	Pri—200/70, Sec—80,000	A	1 1/2 x 2 1/2 x 1 1/2"	1.38
6N1544	A-4706	Pri—100, Sec—60,000	A	1 1/2 x 2 1/2 x 1 1/2"	1.41
6N1545	A-4708	Pri—200CT, Sec—57,000	J	2x2 1/2 x 1 1/2"	2.09
6N1541	A-4351*	Pri—500/333/200/125/50 Sec—89,000	TD	2 1/16 x 2 3/4 x 2 3/16"	3.47
6N1542	A-4352*	Pri—500/333/200/125/50 Sec—89,000	Q	2x3 1/4 x 1 3/4"	3.06
6N1546	A-4709	Pri—30/15/8/4 Sec—106,000	TD	2 1/16 x 2 3/4 x 2 3/16"	3.76

\*Has a dual primary. When properly connected, the 500 and 200 ohm sections are center-tapped.

Intercommunicator and Transceiver.

No.	Type	Impedance	Mtg.	HxWxD	Each
6N1693	A-4744	Pri—4, Sec—25,000	VE	1 3/8 x 2 1/2 x 1 1/2"	1.44
6N1643	A-3833	Pri—200 and 5,000 Sec—60,000	A	1 3/8 x 2 1/2 x 1 1/2"	2.00

## DC FILTER CHOKES

All are Type A Mtg. except \*L, †TD, ‡C

No.	Type	Hys.	Ma.	Ohms	HxWxD	Ea.
6N1856	C-1515	20	15	900	1 3/8 x 2 1/2 x 1 1/2"	1.06
6N1698	C-1706	4.5	50	300	1 3/8 x 2 1/2 x 1 1/2"	.94
6N1699	C-1707	7	50	550	1 3/8 x 2 1/2 x 1 1/2"	.94
6N1623	C-1003	16	50	580	2x3 1/4 x 1 3/8"	1.28
6N1700	C-1708	13	65	500	2x3 1/4 x 1 3/8"	1.38
6N1852	C-1355*	8	75	290	2 1/2 x 2 1/2 x 1 1/2"	1.47
6N1624	C-1002	15	75	400	2 1/2 x 3 1/2 x 2 1/2"	1.73
6N1701	C-1709	8	85	250	2x3 1/4 x 2"	1.62
6N1585	C-2305†	8	100	300	2 1/16 x 2 3/4 x 2 3/16"	2.35
6N1625	C-1001	10.5	110	225	2 3/8 x 4 x 2 3/4"	2.18
6N1583	C-2303	2.5	130	100	2x3 1/4 x 1 3/8"	1.47
6N1584	C-2304	2.3	150	60	2x3 1/4 x 1 3/8"	1.53
6N1586	C-2309	3	150	90	2 1/2 x 3 1/2 x 2 1/2"	1.65
6N1702	C-1710	7	150	200	2 3/8 x 4 x 2 3/4"	2.06
6N1772	C-2308†	8	300	80	4 3/8 x 4 x 3 1/8"	5.82

Combination Plate and Filament Supply (Type C mtg.). \*\*"G" mtg.

No.	Type	Plate		Rec. Fil.		Amp. Fil.		Mtg. Area	Wt. Lb.	Ea.
		V	DC ma	V	Amp.	V	Amp.			
6N1739	P-4043	700	90	5.0	3.0	2.5CT	3.5	3 3/8 x 3 3/8"	5	5.88
						2.5	9.0			
6N1742	P-4044	700	110	5.0	3.0	2.5CT	3.5	3 3/8 x 3 3/8"	6	6.47
						2.5	14.0			
6N1756	P-4076	650	40	5.0	2.0	6.3CT	2.0	2 3/8 x 2 1/2"	3	3.97
6N1800	P-4077	700	50	5.0	2.0	6.3CT	2.6	3x3"	3	4.41
6N1801	P-4078	700	70	5.0	3.0	6.3CT	3.0	3 1/4 x 3"	4	5.00
6N1802	P-4079	700	90	5.0	3.0	6.3CT	3.5	3 3/8 x 3 1/2"	5	5.59
6N1804	P-4080	700	110	5.0	3.0	6.3CT	4.5	4x3 1/2"	6	5.88
6N1866	P-6143	880	130	5.0	3.0	6.3CT	3.5	3 3/8 x 3 1/2"	7	7.20
6N1805	P-4081	800	160	5.0	3.0	6.3CT	4.5	4x3 1/2"	7	7.06
6N1750	P-5059	675	200	5.0CT	3.0	6.3CT	5.0	4x4 1/2"	10	8.08
6N1869	P-61/0	1200	200	5.0	3.0	6.3	3.0	4x4"	8	7.94
6N1705	P-1503	700	120	5.0CT	3.0	1.5	5.0	4x3 1/2"	7	8.08
						1.5CT	1.0			
						2.5CT	4.0			
6N1737	P-4004	800	175	5.0CT	3.0	2.5	1.75	4x3 1/2"	8	7.94
		80 volt bias				6.3CT	2.5			
						6.3CT	2.5			
6N1738	P-4010	800	250	5.0	3.0	6.3	4.5	4x4 1/2"	10	8.97
6N1704	P-948*	676	70	5.0	3.0	6.3CT	2.5	3 3/8 x 3 3/8"	4	4.62

## Vibrator Transformers

Stock No.	Type No.	Secondary AC Volts	Secondary DC volts	Filter ma	Mtg. Type	Dimensions HxWxD	Ea.
6N1736	P-6301	420	150	40	S	2 1/2 x 2 1/2 x 1 3/4"	2.65
6N1752	P-4060	480	225	40	N	3 3/8 x 2 1/2 x 2 3/8"	2.88
6N1753	P-4061	580	250	50	N	3 3/8 x 2 1/2 x 2 3/8"	3.09
6N1754	P-4062	600	260	65	N	3 3/8 x 2 1/2 x 2 3/8"	3.38
6N1755	P-4063	640	285	75	N	3 3/8 x 2 1/2 x 2 3/8"	3.32
6N1865	P-6131	740	330	100	N	3 3/8 x 2 1/2 x 2 3/8"	4.12

## INTERSTAGE TRANSFORMERS

PUSH-PULL INPUT. Single Plate (7,000 to 20,000 ohms) to push-pull class "A" grid. All pri. are rated at 10MA-DC except A-4206 and A-4208—15MA.

No.	Type	Mtg.	Ratio	HxWxD	Each
6N1619	A-52-C	A	2:1	1 3/8 x 2 1/2 x 1 1/2"	1.44
6N1587	A-62-C	A	2:1	1 3/8 x 2 1/2 x 1 1/2"	1.56
6N1549	A-4741	S	2:1	2x2 1/2 x 1 1/2"	1.65
6N1651	A-53-C	A	3:1	1 3/8 x 2 1/2 x 1 1/2"	1.44
6N1690	A-63-C	A	3:1	1 3/8 x 2 1/2 x 1 1/2"	1.56
6N1654	A-73-C	A	3:1	2x3 1/4 x 1"	1.88
6N1691	A-4750	S	3:1	2 1/2 x 2 1/2 x 1 1/2"	2.06
6N1686	A-4719	TD	3:1	2 1/16 x 2 3/4 x 2 3/16"	3.44
6N1629	A-83-C	A	3:1	2 1/4 x 3 1/2 x 2 1/4"	2.88
6N1632	A-103-C	A	3:1	2 1/8 x 4 x 2 1/4"	3.79
6N1589	A-4206*	C	3.25:1	3 3/8 x 2 1/2 x 2 3/8"	4.41

\*Has a pie-wound split secondary.

PUSH-PULL INTERSTAGE. Push-pull plates (7,000 to 15,000 ohms) to push-pull class "A" grids.

No.	Type	Mtg.	Ratio	HxWxD	Each
6N1683	A-4711	A	1:1	1 3/8 x 2 1/2 x 1 1/2"	1.82
6N1633	A-4155*	L	3:1	2 1/4 x 2 3/8 x 1 3/4"	2.79

PUSH-PULL INTERSTAGE. Push-pull plates (7,000 to 20,000 ohms) to parallel or push-pull grids.

No.	Type	Mtg.	Ratio	HxWxD	Each
6N1681	A-4208	C	0.7:1	3 3/8 x 2 1/2 x 2 3/8"	3.53
6N1554	A-4777	C	1.5:1	3 3/8 x 2 1/2 x 2 3/8"	3.82
6N1631	A-4774*	S	3:1	2 1/8 x 2 1/2 x 1 3/4"	2.38
6N1630	A-4773*	TD	3:1	2 1/16 x 2 3/4 x 2 3/16"	3.53
6N1634	A-4775*	S	3:1	2 1/16 x 3 x 2 3/16"	3.09

\*Primary is center-tapped and secondary has split winding, thus permitting ratios of 1:1, 3:1 and 6:1. May be used in either step-up or step-down applications.

## AC-DC CHOKES

All



# STANCOR TRANSMITTING TRANSFORMERS

## POLY-PEDANCE TRANSFORMERS

Driver Transformers. Tapped to give usable ratios in Class B drivers. Cap., 15 watts; primary per side, 60 Ma. Type CD mounting. Wt. 3 lbs.

## DRIVER TRANSFORMERS

These drivers can be used in all transmitting applications employing Class "B" modulators, requiring a driver stage. May also be used in many heavy duty types of audio amplifiers.

Single Drivers. Single Plate to push-pull grids.

No.	Type	Impedance Pri	Pr/1/2Sec Ratio	Wt. Lbs.	Mtg.	Each
6N1685	A-4713	10M ohms	2:1	1	A	1.53
6N1692	A-4752	10M ohms	2/1.5/1:1	1.5	A	2.35
6N1687	A-4722	10M ohms	2:1	2	TD	3.18
6N1568	A-4292	10M ohms	2.5:1	1	A	1.53
6N1689	A-4734	10M ohms	2.5:1	1.5	A	2.00
6N1688	A-4723	10M ohms	3:1	1	A	1.53
6N1579	A-4210	1500-5M ohms	3:1	2.5	C	3.23
6N1581	A-4216	10M ohms	5:1	1.5	TD	3.23
6N1897	A-4702	1500-5M ohms	5:1	2.5	C	3.41

Push-Pull Drivers. Push-Pull plates to push-pull grids.

No.	Type	Impedance Pri	Pr/1/2Sec Ratio	Wt. Lbs.	Mtg.	Each
6N1569	A-4404	3M-5M ohms	2:1	4	C	4.29
6N1681	A-4208*	20M-30M ohms	2.8:1	3	C	3.53
6N1684	A-4712	20M ohms	3:1	1	A	1.71
6N1680	A-4701*	20M ohms	3:1	3	C	3.73
6N1580	A-4212	1500-5M ohms	3.2:1	3	C	3.62

\*These units have split secondaries for individual bias adjustment and/or use of inverse feedback.

## PLATE SUPPLY TRANSFORMERS

Designed primarily to deliver the rated DC voltage and current outputs when used with full-wave mercury-vapor rectifier tubes in conjunction with a two-section filter employing choke input and two mid condensers working into a resistive load. Phenolic terminal boards and heavy duty ceramic insulators assure protection from voltage breakdown.

No.	Type	DC Volts	DC Ma	HxWxD	Wt. Lbs.	Mtg.	Each
6N1860	P-8042	600,400, 40	300	4 3/4x4x6 3/8"	18	C	13.82
6N1861	P-8043	750, 600, 40	300	7 1/2x6 1/2x8 1/2"	29	FS	25.58
6N1862	P-8026	1250, 1000	300	7 1/4x7 1/2x8 1/4"	37	FS	31.75
6N1863	P-8028	1500, 1250	300	7 1/4x7 1/2x8 1/2"	39	FS	32.93
6N1864	P-8032	2000, 1750	300	7 3/4x7 1/2x9 1/2"	46	FS	41.75



## FILAMENT TRANSFORMERS

A wide range of voltage and current ratings is available 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 Primaries 115 Volts 60 Cycles.

No.	Type	Secondary		Dimensions		Mtg.	Lbs.	Each
		V	Amps.	HxWxD				
6N1728	P-6133	2.5 CT	5	2 1/4x3 1/2x2 1/4"	S	1.5	2.65	
6N1711	P-4083	2.5 CT	6	3 1/2x2 1/2x2 1/2"	C	2	3.82	
6N1707	P-3024	2.5 CT	10	3 1/2x2 1/2x2 1/2"	C	2.5	3.67	
6N1774	P-3060	2.5 CT	10	3 1/2x2 1/2x2 1/2"	B	2.5	3.35	
6N1708	P-3026	5 CT	3	3 1/2x2 1/2x2 1/2"	C	2	3.53	
6N1790	P-4088	5 CT	3	3 1/2x2 1/2x2 1/2"	B	2	2.82	
6N1709	P-3062	5 CT	6	3 1/2x2 1/2x2 1/2"	B	2	3.23	
6N1730	P-6135	5 CT	10	3 1/2x2 1/2x2 1/2"	N	3	3.53	
6N1729	P-6134	6.3 CT	1.2	1 1/2x2 1/2x1 1/2"	A	1	1.56	
6N1779	P-5014	6.3 CT	3	3 1/2x2 1/2x2 1/2"	B	2	2.65	
6N1710	P-4019	6.3 CT	4	3 1/2x2 1/2x2 1/2"	C	3	3.38	
6N1775	P-3064	6.3 CT	6	3 1/2x2 1/2x2 1/2"	C	2	3.23	
6N1788	P-4089	6.3 CT	6	3 1/2x3x3 1/2"	B	3.5	3.82	
6N1740	P-6308	6.3 CT	10	3 1/2x2 1/2x2 1/2"	N	3.5	3.76	
6N1780	P-5015	7.5 CT	4	3 1/2x2 1/2x2 1/2"	B	3	2.65	
6N1782	P-6138	7.5 CT	8	3 1/2x3 1/2x2 1/2"	N	5	4.47	
6N1789	P-4093	7.5 CT	24	5 1/2x4 1/2x10"	FB	21	14.70	
6N1732	P-6139	10 CT	8	3 1/2x3 1/2x3 1/2"	N	5	4.38	
6N1725	P-4097	10 CT	8	4x3 1/4x3 3/8"	C	5	5.00	

## AUTOFORMERS

Operate from 230 v source to deliver 115 v output. May be used in reverse for step-up. Type "K" mounting has six foot line cord and plug on input side, female receptacle for output. For 50-60 cycle, single phase operation.

No.	Type	Watts	HxWxD	Mtg.	Lbs.	Each
6N1776	P-5062	80	3 3/8x3x3 1/2"	K	4	4.94
6N1777	P-5063	100	4x3 1/2x3 1/2"	K	5	5.67
8	P-5064	150	4 1/2x3 1/2x3 1/2"	K	5	6.47
6	P-6141	500	4 1/4x4x5 1/8"	K	14	12.35

## SPECIAL TRANSFORMERS

In answer to the demand for special transformers for new circuits and tubes, and for experimental work, Stancor maintains complete facilities for the design and manufacture of these specials. When in need of this

No.	Type	Ratio Primary to 1/2 Secondary	HxWxD	Ea.
6N1616	A-4761	1.25:1, 1.4:1, 1.6:1, 1.8:1, 2:1, 2.2:1, 2.4:1.	3 1/2x2 1/2x3 3/8"	7.84
6N1617	A-4762	2.6:1, 3:1, 3.2:1, 3.4:1, 4:1, 4.5:1, 5:1.	3 1/2x2 1/2x3 3/8"	7.11

Line Driver Transformers. Multi-tapped, designed with pie-wound coils to assure low leakage inductance, low resistance and low capacity. Cap., 15 watts. Type CD mtg. Wt. 3 lbs.

No.	Type	Ratio Primary to 1/2 Secondary	HxWxD	Ea.
6N1615	A-4765	1:1.75, 1:85, 1:1, 1:1.25, 1:1.45, 1:1.75, 1:2, 1:2.25, 1:2.5, 1:2.75, 1:3.15.	3 1/2x2 1/2x3 3/8"	7.94

## MODULATION TRANSFORMERS

Well engineered and carefully manufactured for specific tube types. Excellent frequency response, high efficiency and lasting quality make these modulation transformers outstanding in operation and value.

No.	Type	Pri. Imp.	Sec. Imp.	Watts	Mtg.	Lbs.	Ea.
6N1748	A-3845	10M-CT	8000/6500/5000/3000	25	C	3	3.62
6N1668	A-3835	5M/3M-CT	10000/8350/5350	25	C	4	4.65
6N1751	A-3808	3800/3300-CT	10000/7500/5000/4000	60	D	8	7.79
6N1759	A-3829	9000/6900-CT	6250/5000/4000/3300	175	D	11	9.73

Modulation Transformers. Tapped to give wide range impedances for correctly matching every type load. Impedance chart and instructions with each unit.

No.	Type	Max. Wtts.	Pri. Ma. Per Side	Sec. Ma. Per Side	Dimensions HxWxD	Type Mtg.	Ea.
6N1679	A-3891	15W	100	100	3 1/2x2 1/2x2 1/2"	D	7.06
6N1621	A-3892	30W	150	150	4x3 1/4x3 1/2"	D	7.06
6N1622	A-3893	60W	180	180	3 1/2x3 1/4x4 1/2"	D	8.23
6N1627	A-3894	125W	225	225	4 1/4x4 1/4"	D	10.85

Shpg. Wt.: A-3891, 2.5 lbs., A-3892, 4 lbs., A-3893, 6 lbs., A-3894, 9 lbs.

## FILTER CHOKES

No.	Type	Hys.	Ma.	Ohms	HxWxD	Mtg.	Lbs.	Ea.
6N1834	C-1420	16	80	360	3 3/8x2 1/2x2 1/2"	C	2.5	2.53
6N1840	C-1421	7	140	165	3 1/2x2 1/2x2 1/2"	C	2.5	3.12
6N1830	C-1410	4	175	100	3 1/2x2 1/2x2 1/2"	C	2.5	3.00
6N1832	C-1646	5	200	90	4x3 1/4x3 1/2"	C	4.5	4.29
6N1831	C-1411	4.5	200	80	3 1/2x3x3 1/2"	C	3.5	3.70
6N1614	C-1721	8.5	200	120	3 1/2x3 1/2x3 1/2"	N	4.5	3.70
6N1767	C-1703	4	250	60	3 1/2x2 1/2x3 1/2"	B	4	4.09
6N1828	C-1412	4	250	60	3 1/2x3x3 1/2"	C	4	4.53

## SWINGING CHOKES

No.	Type	Hys.	Ma.	Ohms	Dimensions HxWxD	Mtg.	Lbs.	Ea.
6N1858	C-1718	13.5-3.5	15-150	130	3 3/8x2 1/2x2 1/2"	C	2	2.94
6N1827	C-1400	12-2	17.5-175	100	3 1/2x2 1/2x2 1/2"	C	2	3.12
6N1855	C-1401	12-2	20-200	80	3 1/2x3x3 1/2"	C	3.5	3.82
6N1857	C-1645	12-2	20-200	90	4x3 1/4x3 1/2"	C	4.5	4.29
6N1766	C-1702	12-2	25-250	60	3 1/2x2 1/2x3 1/2"	B	4	4.09
6N1829	C-1402	12-2	25-250	60	3 1/2x3x3 1/2"	C	4	4.53
6N1769	C-1720	20-4	30-300	80	4 1/2x3 1/2x3 1/2"	N	7.5	5.17
6N1771	C-2307	20-4	30-300	80	4 1/4x4x3 3/8"	C	8	5.82

## ISOLATION TRANSFORMERS

Step-down units have overall ratio of 2:1. All units have built-in electrostatic shields grounded to core and frame. Adjustment for high and low line voltage inputs permitted by three primary taps. All units for 50-60 cycle, single phase operation.

Straight Isolation (125/115/104 v to 115 v).

No.	Type	Watts	Mtg.	HxWxD	Lbs.	Each
6N1867	P-6160	100	KA	4 1/4x4x3 3/8"	7	10.14
6N1868	P-6161	250	KA	4 1/4x4x5 1/8"	14	19.99

Step-Down Isolation (250/230/210 v to 115 v).

No.	Type	Watts	Mtg.	HxWxD	Lbs.	Each
6N1747	P-6387	500	FK	7 1/2x6 1/2x7 1/8"	30	27.02

service, please submit complete electrical specifications, physical limitations, type of mounting desired, terminal arrangement and all other information that will enable us to give you an accurate quotation.



**PLATE TRANSFORMERS**

Primaries for 115 v., 50/60 cycles a.c. For duplex rectifiers, the high and low voltage output of any of the units listed below can be used simultaneously. The rated d.c. current can be divided as required between both voltage outputs.

No.	Type	High Voltage	Ma.	Case	Lbs.	Each
6N5844	S-44	575-525-0-525-575....	500	G-9	23	15.19
6N5845	S-45	900-750-0-750-900....	200	G-8	15	11.78
6N5846	S-46	1000-750-0-750-1000..	300	G-9	23	14.70
6N5847	S-47	1500-1250-1000-0- 1000-1250-1500....	300	G-10	27	18.82
6N5848	S-48	1500-1250-1000-0- 1000-1250-1500....	500	G-11	34	27.44
6N5850	S-50	3000-2500-0-2500- 3000	300	G-12	55	36.28

**PLATE AND FILAMENT TRANSFORMERS**

All primaries for 115 volts, 50/60 cycles a.c. High volt. 490-400-0-400-490 at 175 ma.; 5 v. at 3 a. (rect.); 2.5 v. c.t. at 6 a.; 6.3 v. c.t. at 4 a. G-7. Wt. 11 lbs. **10.29**

High volt. 525-425-C-425-525 at 250 ma.; 5 v. at 3 a. (rect.); 6.3 v. c.t. at 3 a.; 6.3 v. c.t. at 5 a. G-7. Wt. 11 lbs. **10.29**

High volt. 600-0-600 at 200 ma.; 5 v. at 3 a. (rect.); 7.5 v. tapped at 6.3 v. at 3 a.; 6.3 v. c.t. at 2 a. G-7. Wt. 11 lbs. **9.31**

High volt. 600-525-0-525-600 at 300 ma.; 5 v. at 3 a. (rect.); 7.5 v. tapped at 6.3 v. at 3 a.; 6.3 v. c.t. at 3 a. G-8. Wt. 15 lbs. **12.25**

**SINGLE SECONDARY FILAMENT TRANSFORMERS**

Primaries tapped 105, 115 volts, 50/60 cycles a.c.

No.	Type	Sec. Volts	Amps.	Insul.	Case	Lbs.	Each
6N5853	S-53	2.5 c.t.	10	1500 v.	G-3	4	3.14
6N5854	S-54	5 c.t.	4	2500 v.	G-3	4	3.14
6N5855	S-55	6.3 c.t.	3	1500 v.	G-3	4	3.14
6N5857	S-57	2.5 c.t.	10	10000 v.	G-5	6½	4.41
6N5858	S-58	2.5 c.t.	20	10000 v.	G-5	6½	5.39
6N5859	S-59	5 to 5.25 c.t.	13	5000 v.	G-5	6½	4.41
6N5861	S-61	7.5 tapped, 6.3 c.t.	8	3000 v.	G-5	6½	4.41
6N5862	S-62	10 c.t.	10	5000 v.	G-5	6½	5.39
6N5863	S-63	14 v. c.t. tapped at 12 v. c.t., 11 v. c.t.	10	5000 v.	G-7	11	9.80

**ULTRA COMPACT AUDIO UNITS**

Hi-fidelity, small, lightweight, suitable for compact equipment. Frequency response + 2 db. from 30 to 20,000 cps. Maximum operating level + 10 db. Top or bottom mtg. Size: 1½"x1½"x2". Wt. 1 lb.



No.	Type	Pri. Imp. Ohms	Sec. Imp. Ohms	Each
6N5394	A 10	50, 125, 200/250, 333, 500/ 600 ohms	50,000 ohms	8.82
6N5726	A 11	50, 200, 500	50,000 ohms	8.82
6N5370	A 12	50, 125, 200/250, 333, 500/ 600 ohms	80,000 ohms overall, in 2 sections	8.82
6N5271	A 14	30 ohms	50,000 ohms overall in 2 sections	8.23
6N5372	A 16	15,000 ohms	60,000 ohms 2:1 turn ratio	7.84
6N5373	A 18	15,000 ohms	80,000 ohms overall, 2.3:1 turn ratio overall	8.23
6N5374	A 19	15,000 ohms	80,000 ohms overall, 2.3:1 turn ratio overall	10.58
6N5375	A 20	50, 125, 200/250, 333, 500/ 600 ohms	50, 125, 200/250, 333, 500/ 600 ohms	8.82
6N5376	A 21	50, 200/250, 500/600	50, 200/250, 500/600	9.41
6N5397	A 24	15,000 ohms	50, 125, 200/250, 333, 500/ 600 ohms	8.82
6N5377	A 25	15,000 ohms	50, 125, 200/250, 333, 500/ 600 ohms	8.23
6N5378	A 26	30,000 ohms plate to plate.	50, 125, 200/250, 333, 500/ 600 ohms	8.82

**VARIMATCH MODULATION TRANSFORMERS**

Universal modulation transformer. For matching all popular types of modulator tubes to plate modulated Class C amplifier stage. Secondaries are designed to carry the plate current of the Class C stage. CVM-0 through 4 use RC case.



CVM-5



RC

Stock No.	Type	Max. Audio Watts	Watts Class C Stage	L.	Size W.	H.	Shpg. Wt.	Each
6N5359	CVM-0	12	10-25	2½"	3"	8"	3	5.00
6N5360	CVM-1	30	20-60	3½"	4½"	4½"	6	8.23
6N5361	CVM-2	60	40-125	3¾"	4¾"	6"	12	12.05
6N5362	CVM-3	125	100-250	6"	4¾"	6"	20	17.64
6N5363	CVM-4	300	200-600	7¾"	9"	5½"	31	29.40
6N5364	CVM-5	600	450-1200	11"	11"	9"	89	67.62

**UTC TRANSMITTING TRANSFORMERS**



G1 TO G4



G5 TO G11



CASE DIMENSIONS				CASE DIMENSIONS			
Type	Height	Width	Depth	Type	Height	Width	Depth
G1	1 7/8"	2 1/8"	1 1/8"	G8	4 3/4"	5 3/4"	5 3/4"
G2	2 1/8"	3 1/8"	1 1/8"	G9	5 1/4"	5 3/4"	6 3/4"
G3	2 1/4"	3 3/4"	2 3/8"	G10	5 1/2"	6 1/4"	6 3/4"
G4	2 1/4"	4 1/4"	2 3/8"	G11	5 1/2"	6 1/4"	7 3/4"
G5	3 3/8"	3 1/4"	4 1/8"	G12	10 1/4"	7 3/8"	9 1/4"
G7	4 3/8"	4 3/8"	5 1/2"				

**CLASS A INPUT TRANSFORMERS**

No.	Type	Application	Ratio	Case	Lbs.	Each
6N5802	S-2	1 plate* to 2 grids.....	2:1	G-2	3½	3.72
6N5804	S-4	1 plate* to 2 grids, wide range response.....	1:1	G-3	4	5.10
6N5805	S-5	Single or double button mike or line to 1 grid; hum bucking type.....	16:1	G-2	3½	4.16
6N5806	S-6	Single or double button mike or line to 1 grid; compact type.....	16:1	G-1	3	3.04

\*Will match tubes like 6CS, 56, 6C6 triode, 77 triode, etc. Can be used with high mu triodes with loss in low frequencies.

**UNIVERSAL OUTPUT TO LINE AND VOICE COIL**

All secondaries designed to match 2, 8 and 15 ohm voice coils and 500 ohm line. Shpg. wts.: G-2, 3½ lbs., G-4, 5 lbs.

No.	Type	Primary Ohms	Watts	Case	Each
6N5814	S-14	2500, 4000, 7000.....	10	G-2	4.41
6N5815	S-15	4000, 5000, 10,000.....	12	G-2	4.61
6N5816	S-16	3000, 6000-6600, 10,000..	30	G-4	6.08

**UNIVERSAL MODULATION TRANSFORMERS**

Designed to match any modulator tubes to any RF load. Secondary will carry DC current of a Class C stage.

No.	Type	Watts	Case	Lbs.	Each
6N5818	S-18	12	G-3	4	4.90
6N5819	S-19	30	G-4	5	7.35
6N5820	S-20	55	G-5	6½	10.78
6N5821	S-21	110	G-7	11	15.19
6N5822	S-22	250	G-9	23	23.52

**UNIVERSAL DRIVER TRANSFORMER**

No.	Type	Application	Case	Lbs.	Each
6N5809	S-9	P.P. Driver plates to grids of Class B tubes up to 400 watts output.....	G-3	4	5.10

**MULTIPLE SECONDARY FILAMENT TRANSFORMERS**

Primaries tapped 105, 115 volts, 50/60 cycles AC. All secondaries center tapped. Shpg. wt., each 6½ lbs.

Stock No.	Type	Fil. No. 1 Volts Amps.	Fil. No. 2 Volts Amps.	Fil. No. 3 Volts Amps.	Case	Each
6N5865	S-65	2.5 5	5 4	6.3 3	G-5	5.39
6N5868	S-68	5 3	6.3 4	7.5 5	G-5	5.88
6N5870	S-70	6.3 5	6.3 5		G-5	5.88

All 3000 volt insulation.

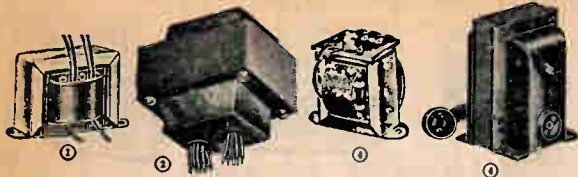
**FILTER, SWINGING AND AUDIO CHOKES**

Nos.	Type	Service	Hy.	Ma.	Ohms	Case	Each
6N5823	#S-23	Audio	500	5	6000	G-2	3.33
6N5827	*S-27	Filter	30	75	350	G-4	3.72
6N5828	*S-28	Filter	20	100	350	G-4	3.72
6N5829	*S-29	Filter	10	175	95	G-4	3.72
6N5330	*S-30	Swing.	5/25	175	95	G-4	3.72
6N5831	*S-31	Filter	20	225	120	G-5	4.90
6N5832	*S-32	Swing.	5/25	225	120	G-5	4.90
6N5833	#S-33	Filter	20	200	90	G-7	6.86
6N5834	#S-34	Swing.	5/25	300	90	G-7	6.86
6N5836	#S-36	Swing.	5/25	400	85	G-8	10.29
6N5837	#S-37	Filter	20	550	60	G-8	13.72

Shpg. wts.: #3½ lbs., \*6 lbs., †11 lbs., ‡15 lbs.



# UTC AND RELIANCE TRANSFORMERS



## RELIANCE REPLACEMENT TRANSFORMERS

Designed for quality, performance and durability. Operate cool and perpetually free from mechanical hum. High vacuum varnish impregnated. All laminations cushion bonded.

### 1. FILAMENT TRANSFORMERS

No.	Primary Volts	Secondary Volts	Secondary Amperes	Dimen. H x W x D	Each
6N1950	115, 60 cy.	6.3 ct.	1	1 1/2 x 2 1/2 x 1 1/2"	.87
6N1951	115, 60 cy.	6.3 ct.	3	2 x 3 1/2 x 1 1/2"	1.35
6N1952	115, 60 cy.	6.3 ct.	6	2 1/2 x 4 x 2 1/2"	2.10
6N1953	115, 60 cy.	5 ct.	3	2 1/2 x 2 1/2 x 2"	1.33

### 3. UNIVERSAL LINE AND TUBE TRANSFORMERS

Match voice coil to any tube, single or push-pull, universal line transformers match voice coil to 500, 1000, 1500, or 2000-ohm line. Shpg. wt. 2 lbs.

Wattage	Univ. Line	Univ. Tube	Each
18	6N19190	6N19194	1.52
24	6N19191	6N19195	1.85

### 4. STEP-DOWN TRANSFORMERS

Permits use of standard voltage motors, accessories and appliances with line voltages from 220 to 250 V. 50-60 cycles. Sec. voltage 110-125. Built-in receptacle, cord with plug.

No.	Watts	Size	Wt.	Each
6N1981	80	3 3/8 x 3 x 2 1/4"	5	3.35
6N1982	150	3 1/2 x 3 3/8 x 3 1/4"	7	4.10
6N1983	250	4 3/8 x 3 1/2 x 3 1/4"	9	5.10
6N1984	500	4 3/4 x 4 x 3 3/8"	12	6.50

# UTC COMMERCIAL AND LAB TRANSFORMERS

## UNIVERSAL INTERSTAGE EQUALIZER

Type CGE-1. The ideal device for all applications requiring frequency response correction. Designed to be connected between two triode audio stages or match a high impedance (5000 to 30,000 ohms) source to grid. Employs resonant circuits to permit low or high end equalization without effecting mid-frequencies. Bass may be raised and highs may be dropped simultaneously. Continuously adjust. to 15 db. 2 3/8" x 4" x 2 1/2". 6N5399—Shipping weight 3 lbs. .... 14.70



## CG VARIMATCH OUTPUTS FOR P.A.



No.	Type	Watts	Tubes	Case	Ea.
6N5350	CVP-1	12	42, 43, 45, 47, 2A3, 6A6, 6F6, 25L6	B	5.29
6N5351	CVP-2	30	42, 45, 2A3, 6L6, 6V6, 6B5	C	8.23
6N5352	CVP-3	60	46's, 50's, 300A's, 6L6's, 801's, 807's	D	11.76
6N5353	CVP-4	125	800's, 801's, 807's, 4-6L6's, 845's	E	17.05

## CG VARIMATCH LINE

### TO VOICE COIL TRANSFORMERS

Match any voice coil or group of voice coils to a 500 ohm line. More than 50 voice coil impedances available on each.

No.	Type	Watts	Pri. Imp.	Sec. Imp.	Case	Each
6N5354	CVL-1	15	500 ohms	.2 to 75 ohms	A	4.70
6N5355	CVL-2	40	500 ohms	.2 to 75 ohms	C	6.76
6N5356	CVL-3	75	500 ohms	.2 to 75 ohms	D	10.29

## CG OUTPUT TRANSFORMERS

Secondary Impedances: 500, 200, 16, 8, 5, 3, 1.5 Ohms.

No.	Type	Pri. Imped	Typical Tubes	Watts	Case	Each
6N5345	CG-16	3,000/5,000	2A3, 6A3, 48	20	B	6.47
6N5346	CG-2L6	9,000	6L6's, AB2	30	C	11.17
6N5347	CG-4L6	3,800/4,500	2-6L6's, AB2 or 4-6L6's AB	55	D	17.05

## CG CASE SIZES AND WEIGHTS

Case	Base Sq.	Height	Weight
A	2 1/4"	3 1/4"	2
B	3"	3 3/4"	3
C	3 3/4"	4 1/2"	5 1/2
D	4 1/2"	5 1/2"	10
E	5 1/2"	5 1/2"	15
F	5 3/4"	7 1/4"	20

## POWER TRANSFORMERS—RECEIVER REPLACEMENT

2. Primary 115 V. 60 cycle. Full wave rectification. RMA color-coded leads. Sec. 1-5 V. and 1-6.3 V. filament winding.

No.	H.V. Secondary	DC Ma.	V.	Amperes	Sec. Fil. V.	Amperes	Dimen. Centers	Each
6N1958	480 ct.	40	5	2	6.3	2	2 x 2 1/2"	2.05
6N1959	650 ct.	40	5	2	6.3	2	2 x 2 1/2"	2.10
6N1960	700 ct.	70	5	3	6.3	2.5	2 x 2 1/2"	2.65
6N1961	700 ct.	90	5	3	6.3	3.5	2 1/4 x 2 1/4"	2.90
6N1962	700 ct.	120	5	3	6.3	4.7	2 1/2 x 3 1/4"	3.45
6N1963	750 ct.	150	5	3	6.3	5	2 1/2 x 3 3/8"	4.30

## 1. UNIVERSAL OUTPUT TRANSFORMERS

No.	Class Oper.	Primary Impedance	Sec. Imp.	Max. Watts	Mtg. Ctrs.	Dimen. H. W. D.	Each
6N1954	Sin.	4000/7000	.17	4	2"	1 3/4 x 2 3/4 x 1 1/2"	.87
6N1955	or	8000/10000	to	8	2 3/8"	1 3/8 x 2 1/2 x 1 1/2"	.97
6N1956	P.P.	14000 Ct.	.32	18	2 3/8"	2 1/4 x 2 1/4 x 1 1/2"	1.30
6N1957	Sin.	4000/2000 4000/5000 7000/10000	to to 40	10	2 3/8"	1 3/4 x 2 1/2 x 1 1/2"	1.15

## 1. FIXED OUTPUT TRANSFORMERS

Class A oper. 3.5 ohms secondary. 5 watts max. 2" mtg. centers. 1 3/8" H, 2 3/8" W, 1 1/4" D.

No.	Pri. Imp.	Pri. M.A.	Each
6N1964	2000	60	.58
6N1965	5000	40	.58
6N1966	7000	30	.58
6N1967	10000	30	.58
6N1968	15000	10	.58
6N1969	25000 ct.	10	.75

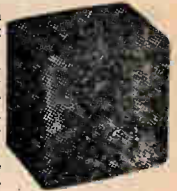
## FILTER CHOKES—REPLACEMENT TYPE

1. All insulated for 1500 volts. Inductance ratings are at 60 cycles with rated current flowing per RMA recommendations.

No.	Inductance	Current	DC Res.	Mtg.	Dimen.	Each
	Henries	M.A.	Ohms	Ctrs.	H. W. D.	
6N1970	4.5	50	200	2 3/8"	1 3/8 x 2 1/2 x 1 1/2"	.74
6N1971	8.5	50	400	2 3/8"	1 3/8 x 2 1/2 x 1 1/2"	.74
6N1972	16	50	550	2 1/2"	2 x 3 1/2 x 1 1/2"	.89
6N1973	15	75	400	3 1/8"	2 1/4 x 3 1/2 x 2 1/4"	1.19
6N1974	10.5	110	220	3 1/8"	2 1/8 x 4 x 2 1/4"	1.38

## UTC HIPERM ALLOY TRANSFORMERS

Light in weight and small in dimensions, with full dependability and fidelity for all compact service applications. Frequency range is + DB from 30 to 20,000 cycles per second. All incorporate a Hiperm alloy 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 terminals either up or down. All are 2 3/8" L, 1 1/2" W, 3 1/8" H, and weight 2 lbs., except 6N5477, which is 3 3/8" L, 2 1/2" W, 3 1/2" H, weighs 5 lbs.



Which Impedance to Grid and Mixing Max. Level +15 DB

No.	Type	Application	Pri. Imp.	Sec. Imp.	Each
6N5466	HA-100	mike, pickup, multiple line to grid	50,125,200, 250,333,500/600	60,000 two sections	11.17
6N5467	HA-100X	Same but with tri-alloy internal shield			14.11
6N5468	HA-101	mike, pickup, multiple line to pp grids	50,125,200, 250,333,500/600	120,000 in two sections	12.94
6N5469	HA-101X	Same but with tri-alloy internal shield		80,000 in two sections	15.88
6N5470	HA-108	Mixing, mike, pickup, or multiple line	50,125,200, 250,333,500/600	500,125,200, 250,333,500/600	11.17
6N5471	HA-108X	Same but with tri-alloy internal shield			14.11

Plate and Crystal to Line Transformers  
Max. level HA-113, +18 DB, HA-114, +20 DB

6N5472	HA-113	Plate to multiple line	15,000	50,125,200, 250,333,500/600	10.58
6N5473	HA-114	P.P. low-level plates to multiple line.	30,000	50,125,200, 250,333,500/600	11.17

Interstage Audio Transformers

Max. Level +17 DB. (\*+25 DB.)

6N5474	HA-104	Single plate to P.P. grids	15,000	95,000 1.25:1	11.76
6N5475	HA-105	Single plate to single grid	15,000	60,000 2:1 turn ratio	8.23
6N5476	HA-106	Single plate to P.P.	15,000	135,000 3:1	9.41
6N5477	HA-107*	P.P. plates to P.P. grids	30,000	80,000 1.6:1	14.11
6N5478	HA-137	P.P. plates to O.P. grids	30,000 ohms	68,000 1.5:1	12.94



## CORNELL-DUBILIER DC TO AC CONVERTER FOR TV EQUIPMENT



Converts 110 volts DC to 110 volts, 60 cycles AC. Features new AutoStart circuit that automatically starts and stops the converter simultaneously with appliance used. RF filtered for broadcast, Short Wave, FM and Television. Adjustable frequency control permits locking of vibrator frequency with transmitted signal.

Model 110RT15—150 watts, for 7" TV sets. 12 $\frac{1}{4}$ x6 $\frac{1}{4}$ x7 $\frac{1}{2}$ ".

21N17239—

Wt. 15 lbs. **49.95**

Model 110RT35—350 watts, for 10" TV sets. 14x7 $\frac{1}{4}$ x8 $\frac{1}{2}$ ".

21N17235—

Wt. 40 lbs. **82.29**

### STANCOR MODEL 752 POWER PACK

Provides well filtered 6 volt DC, 12.5 amperes supply for automobile radio servicing or sales demonstration. Effectively operates push button tuning auto sets. Applicable as well for industrial and laboratory testing. All controls, etc. on front panel.



May also be used for battery charging, magnetic field exciting, electroplating, and many other similar functions. Operates on 110 volts, 60 cycles AC current.

21N17240—Shpg. wt. 30 lbs. **43.90**

### MALLORY VIBRAPACKS



Flexible, heavy-duty vibrator power supplies for supplying high voltage direct current from a storage battery or similar d.c. source. For use with receivers, amplifiers, transmitters, etc., in marine, vehicular P.A., aircraft, police car, fire truck and similar applications. Four voltage outputs 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.

No.	Type	Vltg.	Output Voltage	Output	Type	Each
21N6090	VP-551	6.3	125-150-175-200	100 ma.	Self-Rect.	12.94
21N6094	VP-552	6.3	225-250-275-300	100 ma.	Self-Rect.	15.43
21N6091	VP-553	6.3	125-150-175-200	100 ma.	Tube Rect.	14.41
21N6095	VP-554	6.3	225-250-275-300	100 ma.	Tube Rect.	16.90
21N6066	VP-555*	6.3	300	200 ma.	Tube Rect.	30.58
21N6067	VP-557*	6.3	400	150 ma.	Tube Rect.	30.58
21N6092	VP-G556	12.6	225-250-275-300	100 ma.	Self-Rect.	16.90
21N6068	VP-F558	32.0	225-250-275-300	100 ma.	Tube Rect.	18.37

\*Special Dual Packs for high output. Output vltg. not adjustable. Type VF-223 Filter—For all single unit packs where utmost hum suppression and voltage regulation is required. 21N6060.....4.70

### Replacement Vibrators for Vibrapacks

No.	Vibrapacks	Type Ea.	No.	V'packs	Type Ea.
27N6062	VP-551, 552, 540	725 4.50	27N6064	VP-G556	G-725 5.32
27N6063	VP-553, 554, 555†, 557†	825 3.67	27N6065	VP-F558	F-826 4.06

†Two vibrators required.

### MALLORY VP—540 FILTERED VIBRAPACK

A complete "B" power unit that operates from any 6 volt storage battery and delivers 250 volts at 60 ma., closely matching the power requirements of most auto, marine and aircraft receivers. The self rectifying unit is fully filtered. With overall dust cover and special mtg. bracket. 7 $\frac{1}{2}$ x3 $\frac{1}{2}$ x5 $\frac{1}{8}$ ".

21N6059—Wt. 9 lbs. **17.64**

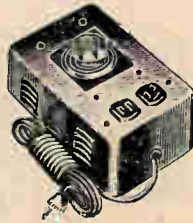


### UTC STANDARD VARITRAN VOLTAGE CONTROLS

Employs a sliding contact riding over the transformer turns. Provides continuously variable output voltages from 0 to 130 volts without interruption of the circuit. All completely shielded. Type V-1 (illustrated) includes cord, plug, and switch. Other units have screw terminals on insulated strip. For 115 volts.

No.	Type	Watts	Amps.	Size	Wt.	Price
21N5733	V-0	230	2	4 x 6 x4 $\frac{3}{4}$ "	10 lbs.	\$11.27
21N5771	V-1	570	5	5 x 8 $\frac{1}{2}$ x3 $\frac{1}{2}$ "	14 lbs.	17.15
21N5716	*V-1M	570	5	5 x10 $\frac{1}{2}$ x3 $\frac{1}{2}$ "	14 lbs.	28.42
21N5772	V-2	570	5	5 x 7 x4 $\frac{1}{2}$ "	13 lbs.	14.70
21N5773	V-3	850	7.5	5 x 7 x5 $\frac{1}{8}$ "	19 lbs.	21.56
21N5774	V-4	1250	11	6 $\frac{1}{2}$ x 9x4 $\frac{3}{4}$ "	37 lbs.	31.36

\*Same as V-1, but includes 0-150 volt AC meter.



## Power Packs—Inverters—Regulators

### ADJUST-A-VOLT VARIABLE TRANSFORMER

Easily controlled rheostat type voltage regulator plus transformer. Voltage adjustment provided by means of self-lubricating moving contact. Operates on 50/60 cycles. All models rated at 860 V.A.

No.	Input	Output	Wt.	Each
21N1990	115 v.	0-140 v.	25 lbs.	\$23.03
21N1991	230 v.	0-280 v.	25 lbs.	30.87
21N1992	230 v.	0-140 v.	37 lbs.	27.93



### ISOLATION TYPES

Similar to transformer above, but with isolated primaries designed for use with any application requiring from 70 to 140 volts. Detects faulty oscillators by dropping line voltage to 105 volts. Rated 500 VA. Shipping weight 25 lbs.

21N1993—115 v. Input.....28.91 21N1994—230 v. Input.....30.87

### THORDARSON AUTOMATIC VOLTAGE REGULATORS



Continuous duty transformers which hold output constant to within  $\pm 1\%$  regardless of line variations from 95 to 130 volts or load variations from no-load to full load. For 60 cycles. Line cord and plug plus receptacle.

No.	Type	VA	Wt.	Cost
21N2133	T23V06*	20	12 lbs.	\$38.22
21N2129	T23V00†	40	18 lbs.	40.57
21N2130	T23V01†	100	48 lbs.	45.86
21N2131	T23V02†	250	66 lbs.	61.15
21N2132	T23V05†	500	76 lbs.	91.14
21N2134	T23V10†	1000	150 lbs.	148.76

\*Secondary 6.3 volts.

†Secondary 110, 115, or 120 volts, as selected by switch on back.

### THORDARSON VOLTAGE CHANGER AUTOTRANSFORMERS

Change 220-250 v., 50/60 cyc. to 110-125. Cord, plug, and recept.

No.	Type	VA	Lbs.	Cost	No.	Type	VA	Lbs.	Cost
6N2135	T23V21	80	5	\$5.88	6N2137	T23V23	250	10 $\frac{1}{4}$	\$8.82
6N2136	T23V22	150	6 $\frac{1}{4}$	7.06	6N2138	T23V24	500	13	11.76

### ELECTRO MODEL "A" DC POWER PACK

6 to 12 volts. To demonstrate or repair auto, marine, or aircraft radios. Plugs into 60 cyc. line, primary taps for 105, 115, 125 v. 2 separately filtered and fused 6v. outputs, each 7 $\frac{1}{2}$  amp. Use separately or in series for 12v., or in parallel for 6v. 15 amp. Furnishes 20 amp. intermittent for relays, etc. Bridge rectifier, chokes, 2-2000 mid. condensers.

Steel cabinet. 7 $\frac{3}{4}$ x11 $\frac{1}{4}$ x7 $\frac{3}{4}$ " Line cord and plug.

21N15703—Shipping weight 31 lbs. **38.22**



### ATR STANDARD AND HEAVY DUTY RADIO INVERTERS

This newly developed line of DC to AC inverters is especially recommended for operating AC Radios, Public Address Systems, Amplifiers, etc., from DC voltages. Extremely well filtered to insure interference-free all-wave radio reception. All models listed below have 110 volt, 60 cycle AC output. Standard models measure 8 $\frac{3}{4}$  x 9 x 5 $\frac{1}{4}$ ", shipping wt., 19 lbs. Heavy duty model measures 6 $\frac{1}{2}$  x 11 $\frac{1}{8}$  x 8 $\frac{1}{2}$ ", shipping wt. 30 lbs.

No.	DC Volts		In.	Cont.	Cost
	Input	Watts			
21N17242	6	85	75	\$25.87	
21N17243	12	125	100	25.87	
21N17244	32	150	100	26.75	
21N17245	110	250	150	26.75	
21N17246*	110	325	225	38.22	
21N17247	220	250	150	28.52	

\*Heavy Duty Model.

### Vibrators for Above

21N6048—For 6V models.....\$5.00  
21N6049—For 110V models..... 5.00



### ATR PHONO INVERTERS

Designed for operation of AC phono motors on 115 volts DC. Equally useful with electric razors and other small appliances. Available in two models. Model PCP-2 is intended basically for phono motors in AC-DC combinations. Has built-in RF interference suppression system and is equipped with input and output leads for installation directly within the cabinet. Model PCP-3 has same features, but input cord set and output receptacle in place of input and output leads. For small record players, appliances, etc. Input: 115 VDC, output: 105V, 60 cycle AC at 25 watt. Overall dimensions for both: 4x2 $\frac{1}{8}$ x4 $\frac{1}{4}$ ".

21N17226—PCP-2. Shipping weight 1 $\frac{1}{2}$ lbs.	<b>7.61</b>
21N17227—PCP-3. Shipping weight 1 $\frac{1}{2}$ lbs.	8.53
21N6047—Replacement Vibrator for above	5.00



## SPECIAL! PHOTO-FLASH CONDENSER

1. Unusually low price on photo-flash condenser with 7 mfd. at 2500 volts DC peak. 21.9 watts seconds energy capacity rating. Size: 2½" dia x 5" high.  
 99N3240—Shipping weight 2 lbs..... **1.49**

## HI-VOLTAGE POWER SUPPLY TYPE PS-1

2. Completely enclosed and sealed-in housing provides safe, trouble-free service. Simple to use—only three terminals to connect. Large porcelain stand-off insulator on high voltage output terminal. Input 117 volt 60-cycle AC. Output will charge capacitors to 2500 volts DC. Maximum load 50 mfd. Size: 4-9/16x2¾x5½".  
 6N1989—Shipping weight 3 lbs..... **11.14**

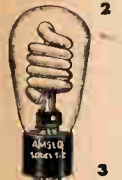
## AMGLO PHOTOFLASH LAMPS FOR PS-1 POWER SUPPLY

3, 4. Light intensity 100 times sunlight. 10,000 flashes per bulb, each 1/10,000 second. High color temperature of 6500° Kelvin with standard circuits. Mounts in standard 4-prong radio tube socket.  
 Type 51Q4X—40-60 watt sec. 20 to 30 MFD. **13.23**  
 36N10582—Shipping weight 1 lb.....  
 Type 48R4X—60-200 watt sec. 30 to 75 MFD. **14.70**  
 36N10583—Shipping weight 1 lb.....  
 Type 5804X—40-150 watt sec. 12 to 18 MFD. **13.72**  
 36N10584—Shipping weight 1 lb.....  
 Type 54R4X—60-200 watt sec. 18 to 36 MFD. **14.70**  
 36N10585—Shipping weight 1 lb.....  
 Type 48U4X—100-600 wattsec. 50 to 360 MFD. **16.17**  
 36N10586—Shipping weight 1 lb.....

## POTTER-BRUMFIELD PHOTO-FLASH RELAYS

5. New alloy contacts discharge capacitor through lamp, handle hundreds of amps during flash. 2500 volt insulation.

Stock No.	Mfg. No.	Coil	Contacts	Each
16N14150	FR1A	6VAC	SPST, NO	3.00
16N14151	FR5A	6VAC	SPDT	3.25
16N14152	FR11A	6VAC	DPDT	4.25
16N14153	FR1D	2VDC	SPST, NO	3.00
16N14154	FR5D	2VDC	SPDT	3.25
16N14155	FR11D	2VDC	DPDT	4.25



## PLASTIC ENERGY STORAGE CAPACITORS

For use with power supplies with peak voltage of 2250. Energy storage 7.6 watts-seconds, 3.2 mfd. Increasing number of capacitors used gives increased light intensity for professional results. 4"x2"x1¼".  
 5N1029—Shipping weight 1 lb..... **2.91**



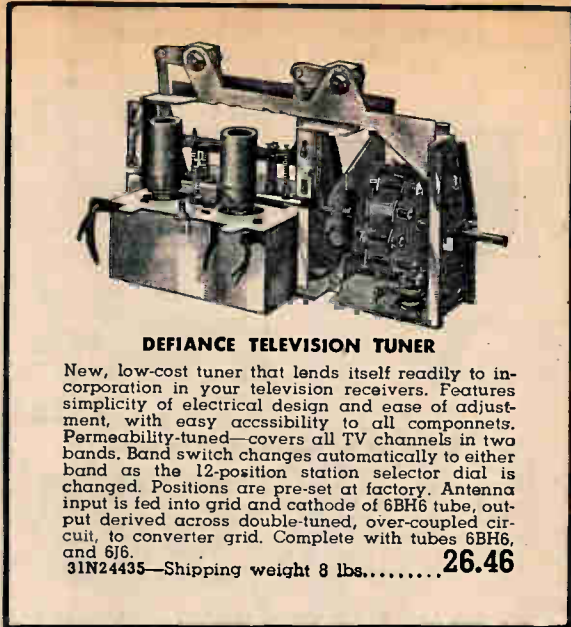
## U.T.C. PHOTOFLASH TRANSFORMERS

For use with standard Amglo type or Sylvania trigger type multiple flash bulbs. Circuit detail included with transformers.  
 PF-1 Primary for 115 v., 50/60 cyc. Secondaries for power supply delivering 2200 VDC to condenser up to 100 MFD. Compound sealed 2½x2¾x2½". **5.88**  
 6N5414—Shipping weight 3 lbs.....  
 PF-2 For portable use. Primary for 4- or 6-volt battery. Secondary for delivering 2200 VDC to condenser up to 60 mfd. Same case and weight as above.  
 6N5415—Shipping weight 2½ lbs..... **5.88**  
 PF-3 Trigger Transformer 15KV peak.  
 6N5416—Shipping weight 2½ lbs..... **2.65**



## THORDARSON PHOTOFLASH EQUIPMENT

6. Thordarson Photoflash AC Power Transformer. Designed for use in 117 VAC operated photoflash power packs. Has proper filament and high voltage windings to provide 2250 VDC when used with 2x2 rectifier tube. Application note and circuit diagram of a typical power pack supplied. Size: 3½" wide, 2½" high, 2½" deep, on 3¼" mounting centers. **3.38**  
 6N2140—Shipping weight 3 lbs.....  
 Thordarson Universal Photoflash Power Transformer. Same as AC model above, but for operation on 117 VAC or 4 volt battery-vibrator (180 cycles). Secondary 1100 volt AC at 1.5 ma. Size: 3¼" wide, 2-11/16" high, 2¾" deep, 2-13/16" mtg. centers. **4.70**  
 6N2141—Shipping weight 3 lbs.....  
 7. Thordarson Photoflash Ignition Transformer. Supplies the high voltage ionizing pulse necessary to fire high pressure three electrode photoflash tubes. Primary is condenser discharge (.25 to .5 mfd at 200 VDC). Secondary 15,000 volts peak. 2¼" wide, 1½" high, 1½" deep. Single hole mounting. Weighs 4 oz. **2.65**  
 6N2142—Shipping weight ½ lb.....  
 Thordarson Photo-Flash Brochure. Theory, operation and construction of photo flash power packs and ignition circuits. **15c**  
 23N19670.....



## DEFIANCE TELEVISION TUNER

New, low-cost tuner that lends itself readily to incorporation in your television receivers. Features simplicity of electrical design and ease of adjustment, with easy accessibility to all components. Permeability-tuned—covers all TV channels in two bands. Band switch changes automatically to either band as the 12-position station selector dial is changed. Positions are pre-set at factory. Antenna input is fed into grid and cathode of 6BH6 tube, output derived across double-tuned, over-coupled circuit, to converter grid. Complete with tubes 6BH6, and 6J6.  
 31N24435—Shipping weight 8 lbs..... **26.46**

## MALLORY 8301 INDUCTUNER



Variable inductance tuning device designed to provide continuous frequency selection over a range of frequencies from approx. 50 to 240 MC, covering all TV and FM bands plus 1¼, 2 and 6-meter. Tuning ranges selected by varying circuit constants.

Ten-turn, or 3600° rotation, permits convenient selection of frequency desired without use of a bandspread mechanism or intricate gear drive. Band width is easily controlled by use of suitable bandpass circuit. The Inductuner may be used as tuning unit in TV receivers with FM, police, aircraft, etc. Shielded, die-cast frame. 7-3/16"x1-13/16" square.  
 31N24436—Shipping weight 2½ lbs..... **29.40**

## MALLORY VIDEO COUPLER



VC 101 Compact, inter-stage coupling unit for use in wide-band amplifiers employed in TV, radar, and oscilloscopes. Consists of peaking inductances and load resistance for essentially flat frequency response to 4 MC per second. Works into terminating cap. of 22.5 mmfd. Mtg. space: 1¾"x¾".  
 12N10170—Shipping weight 5 oz..... **1.03**

## IRC TELEVISION FOCUSING CONTROLS

Wire-wound, center-tapped 2-watt types for vertical and horizontal control of TV pictures. Linear tapers. Size: 1¼"x9/16".  
 8N9167—W20X10 20-ohm. ¼" shafts, 3" long..... } **1.09**  
 8N9168—W10X5 10-ohm. ¼" shafts, 3" long..... }

## DIAL PLATES



Dress up your television kit set with dial plates. Consists of etched plates in pleasantly contrasting tones of metal and maroon. One plate of each for contrast, off-volume, sensitivity control, vertical hold, horizontal hold, channel selector, and brightness control. Set of 6 plates as described above.  
 11N9895—Per set..... **79c**

## HIGH-VOLTAGE POWER SUPPLIES



Type PS2 High voltage, low current DC power supplies for TV, radiation counters, photoflash devices, oscilloscopes, etc. Designed to transform low voltage AC to high voltage low current DC. Employs RC filter, 50,000 ohms, 2x1 mds. Volts input: 118 VAC, 60 cycles; output 2400 VDC, maximum. Current output .005 amps DC max. Fully insulated input and output terminals, with 8-32 screw and nut terminals. Self-contained in hermetically sealed, neutral metal containers, 3¾"x3-3/16"x5½".

21N17260—Shipping weight 2½ lbs..... **15.14**  
 PS-5: 5,000 volts, 2 MA. Size: 4-9/16"x3¾"x6½". **38.22**  
 21N17261—Shipping weight 10 lbs.....  
 PS-10: 10,000 volts T MA. Size: 4-9/16"x3¾"x8". **59.00**  
 21N17262—Shipping weight 12 lbs.....  
 PS-30: 30,000 volts 1 MA. Size: 7"x7"x7". **147.00**  
 21N17263—Shipping weight 16 lbs.....



## RCA TELEVISION COMPONENTS

**Deflection Yoke Type 201D1** for use with direct viewing kinescopes requiring 50° 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 211T1, 204T3 or 204T1 and Vertical output transformer 204T2. **6N5977**.....Each **5.29**

**Horizontal Output Transformers Type 211T1** for use with deflection yoke type 201D1 and with direct viewing tubes such as 7DP4 and 10BP4. Auto-transformer primary provides voltage for pulse rectifier to supply kinescope anode potential. Filament winding for pulse rectifier is included. Secondary is tapped for connecting width control. **6N5975**.....Each **6.76**

**Focus Coil Type 202D1** for magnetically focused kinescopes having deflection angles up to 50° such as the RCA 10BP4. Large conductor size for corrosion-free operation. **6N5983**.....Each **5.35**

**Ion-trap Magnet Type 203D1**. A necessity wherever kinescopes with ion-trap guns are used. Construction is fool-proof—only two coils and a padded mounting yoke. Prevents ions from bombarding the sensitive kinescope screen. **6N5984**.....Each **3.82**

Write for full information on these and other Television components you may require.

No.	Item	Type	Each
31N24479	Mirror	201B1	88.20
31N24450	Lens	201P2	18.82
6N5976	Horizontal Output Trans.	211T2	13.38
6N5985	Horizontal Output Trans.	204T1	13.52
6N5986	Vertical Output Trans.	204T2	4.12
12N10168	Filament Choke	204L1	.18
6N5970	Horizontal Output	204T3	6.76
6N5971	Horizontal Block, OSC Trans.	208T1	2.65
6N5973	Horizontal Block, OSC Trans.	208T3	1.88
6N5972	Vertical Block, OSC Trans.	208T2	2.12
6N5980	Width Control	201R2	1.29
6N5981	Horizontal Linearity Control	201R3	.50
6N5979	Width Control	201R1	.47
6N5974	Horizontal Sync-Disc. Trans.	208T8	1.62
6N5978	Deflection Yoke	201D2	8.76
6N5982	Yoke Mounting Hood	201X1	.84

## TELEVISION REPLACEMENT PARTS



### RCA TELEVISION IF AND VIDEO COIL KIT

1. Contains all coils necessary to build the picture, sound, and video circuits of a high quality television receiver. Shown below in tabular listing. RCA No. 204X1. **12.94**

No.	RCA Type	No. in Kit	Description	Each
12N10157	201K1	2	Sound IF Transformer	1.35
12N10158	202K1	1	Converter Transformer	1.59
12N10159	202K2	1	1st PIX IF	1.59
12N10160	202K3	1	2nd PIX IF	1.12
12N10161	202K4	1	Cathode Trap	1.35
12N10162	203K1	1	Discriminator Transformer	1.65
12N10163	202L1	2	3rd and 4th PIX IF	.44
12N10164	203L1	1	Video Series Peaking Coil	.35
12N10165	203L2	1	Video Shunt Peaking Coil	.35
12N10166	203L3	2	Video Series Peaking Coil	.35
12N10167	203L4	2	Video Shunt Peaking Coil	.35

**Type 201E1 RF Tuner** for television picture and sound. Identical to RF assembly as used in RCA model 630 television set. Complete with all parts mounted and aligned, with tubes, ready for installation into your own television circuit. **31N24437**.....**44.10**

### TELEVISION POWER TRANSFORMER

2. For high voltage, low current power supplies... for oscilloscopes, television receivers, test equipment. Primary rated at 117 volts AC 60 cycles. All secondary insulated for 7500 volts RMS. Delivers 1800 volts AC at 2 MA DC. Rectifier filament 2.5 v. at 1.8 amps, No. 2 filament 6.3 v. at .6 amps, tapped at 2.5 v.—2.1 amp.  $3\frac{3}{4} \times 3\frac{3}{4} \times 3\frac{3}{4}$ " on  $2\frac{1}{2} \times 2\frac{1}{2}$ " centers. **6N2102—Thordarson T-22R40—Shipping weight 6 lbs.**.....**8.82**

**Television Power Transformer.** Rating: high voltage 2200 v at 2 ma; filament voltages 6.3 v at 1 amp, 2.5 v at 2 amps. **6N1501—Shipping weight 2½ lbs.**.....**3.95**

## STANCOR TELEVISION REPLACEMENT PARTS



### VERTICAL OUTPUT TRANSFORMER

**Type A-8115.** Designed to couple the vertical output tube to the deflection yoke in typical vertical deflection circuits. May be used in conjunction with RCA 201D1 or 201D2 deflection yokes and direct viewing or projection kinescopes, such as RCA types 10BP4, 7DP4, 5TP4. Vertical bracket type N mounting with leads. Varnish impregnation for quiet operation. Interchangeable with RCA type 204T2. Sizes:  $3\frac{1}{4} \times 2\frac{1}{2} \times 2\frac{1}{2}$ " D. **6N1555—Shipping weight 2.5 lbs.**.....**3.53**

### VERTICAL BLOCKING OSCILLATOR TRANSFORMER

**Type A-8121.** For blocking oscillator circuits, generates 60 cps as required. Interchangeable with RCA type 208T2. Potted in type TD case with leads out of bottom.  $1\frac{3}{4} \times 2\frac{1}{4} \times 1\frac{1}{2}$ " D. **6N1556—Shipping weight 1 lb.**.....**1.88**

### HORIZONTAL BLOCKING OSCILLATOR TRANSFORMERS

**Type A-8120.** Generates 15,750 cps pulse for blocking oscillator circuits. Interchangeable with RCA type 208T1. Potted in type TD case with leads out of bottom.  $1\frac{3}{4} \times 2\frac{1}{4} \times 1\frac{1}{2}$ " D. **6N1557—Shipping weight 1 lb.**.....**2.29**

**Type A-8110.** Similar to above except for horizontal channel frame type A mounting. Vacuum wax impregnation. Interchangeable with RCA type 208T3 and type 208T1.  $1\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$ " D. **6N1558—Shipping weight 1 lb.**.....**1.62**

### FILTER CHOKE

No.	Type	Rated Inductance	Rated DC	DC Res.	Mtg. Ctrs.	Mtg.	Each
6N1560	C-2325	2 hy (min)	200ma	60 ohms	3½"	A	1.71

### FOCUS COIL

**Type FC-10.** Designed for magnetically focused kinescopes with deflection angles up to 50°. The large center hole of the coil provides ample clearance between core and kinescope neck, allowing for tipping and displacing axis when necessary. For best performance, a rheostat adjustment of the operating current is recommended. Interchangeable with RCA type 202D1. **6N1567—Shipping weight 1 lb.**.....**4.41**



### PLATE AND FILAMENT TRANSFORMERS

For type 2X2 rectifier tubes. Contains filament windings for the rectifier tube. P-8151 includes extra 2.5 volt filament winding. Sizes: P-8150,  $3\frac{1}{4} \times 1\frac{1}{2} \times 2\frac{1}{2}$ " D; P-8151,  $4\frac{1}{4} \times 3\frac{3}{4} \times 2\frac{1}{2}$ " D; P-8152,  $5 \times 3\frac{3}{4} \times 2\frac{1}{2}$ " D.

No.	Type	HV AC v	Secondary DC ma	Rec. V	Fil. Amp.	Fil. Mtg.	Wt. Lbs.	Each
6N1561	P-8150	1550	1.5	2.5	1.75	TD	2	5.73
6N1562	P-8151	2400	5	2.5	2	C	6	8.70

Designed especially for TV applications. Exact duplicate of RCA T110 used in RCA model 630TS TV receiver. High voltage winding delivers 405 v DC at 295 Ma into 80 mfd condenser input filter following two type 5U4-G tubes in a full wave rectifier circuit. Size:  $6\frac{1}{4} \times 3\frac{3}{8} \times 4\frac{5}{8}$ " L.

No.	Type	Pl. S'ply AC v	Rec. DC ma	Fil. V	Aux. V	Fil. Amp.	Fil. Mtg.	Wt. Lbs.	Each
6N1563	P-8152	350	295	5	6	5	2 M	17	15.43

Designed for replacement in RCA 721TS TV receiver. High voltage winding delivers 350 volts DC at 250 Ma into a 80 mfd condenser input filter following a type 5U4-G tube in a full wave rectifier circuit. Size:  $5 \times 3\frac{3}{8} \times 4\frac{5}{8}$ " L.

No.	Type	Plate S'ply AC v	Rec. DC ma	Fil. v	Aux. V	Fil. Amp.	Fil. Mtg.	Wt. Lbs.	Each
6N1564	P-8153	365	250	5	3	6.3	6 M	13	12.94

Two unit power supply designed to work together more economically than one unit. High voltage winding of P-8154 delivers 400 volts DC at 205 Ma into a 40 mfd condenser input filter following a type 54U4-G tube in a full wave rectifier circuit. The high voltage winding of the P-8155 delivers 210 volts DC at 90 ma into a 40 mfd condenser input filter following a type 5Y3-G tube in a full wave rectifier circuit. Sizes: P-8154,  $4\frac{1}{4} \times 3\frac{3}{4} \times 4\frac{1}{2}$ " L; P-8155,  $3\frac{3}{4} \times 2\frac{1}{2} \times 3\frac{3}{8}$ " L.

No.	Type	Plate S'ply AC v	Rec. DC ma	Fil. v	Aux. V	Fil. Amp.	Fil. Mtg.	Wt. Lbs.	Each
6N1565	P-8154	375	205	5	3	5	2 M	9	8.94
6N1566	P-8155	225	90	5	2	6.3	5.15M	5	5.23



# COILS — ANTENNA, IF, RF, OSC.

## MEISSNER IF AND DISCRIMINATOR TRANSFORMERS

Model 16-6665 IF Transformer. For the new ultra-high FM frequencies. Permeability tuned to 10.7 MC. Mounted in rectangular shield can measuring 1 17/16"x7/8"x1 29/32" with screw type mtg. lugs.

12N10329—Shpg. wt. 8 oz. .... **1.73**

Model 17-3484 Discriminator Transformer. Permeability tuned to 10.7 megacycles. For use on New FM range. Same size as above.

12N10333—Shpg. wt. 8 oz. .... **2.29**

## MEISSNER FM-AM "COMPOSITE" IF

Contains 456 KC AM and 10.7 MC FM IF transformer. For AM-FM set with coil below. Can size: 1 3/4" square.

12N10334—Model 16-6675. Shpg. wt. 1 lb. .... **2.35**

FM Ratio Detector coil. Companion unit to above.

12N10335—Model 17-3487. Shpg. wt. 1 lb. .... **2.26**

## MEISSNER STANDARD ANT. AND RF COILS

Designed to cover the BC band from 545 to 1580 KC (190-550 meters) with a 365 mmfd tuning condenser. High impedance primaries, wound with Litz wire. Shielded coils are in black crackle finished non-magnetic can. 1 7/8" dia., 2 1/2" high.

### UNSHIELDED

12N10046—Ant. Coil. .... } **56c**

12N10047—RF Coil. .... }

### SHIELDED

12N10044—Ant. Coil. .... } **73c**

12N10045—RF Coil. .... }

## "UNIVERSAL ADJUSTABLE" ANT, RF, OSC. COILS

Replace BC band coils in most receivers, accurately track other coils when adjusted. Matches inductance of burned out coil with screwdriver adjustment. Osc. Coil adjustable from 175 to 520 KC.

### UNSHIELDED COILS

For use with either cut plate or padding condenser circuits.

No.	Type	Each
12N10007	Antenna	} <b>1.03</b>
12N10008	RF	
12N10009	Oscillator	

### ECONOMY COILS

Similar to coils at left, but less terminal wafer. Bakelite form.

No.	Type	Each
12N10035	Antenna	} <b>85c</b>
12N10036	RF	
12N10037	Oscillator	

## OSCILLATOR COILS FOR 190-550 METER BC BANDS

Used with 365 mmfd condensers, IF transformers and RF and antenna coils. Shielded type is 1 3/4"x1 1/2". Padders not supplied.

No.	Cost	Freq.	Padder	No. Un-	Cost
Shielded	Each	KC	Mmfd	shielded	Each
12N10029	} <b>79c</b>	175	900	12N10028	} <b>62c</b>
12N10031		456	350	12N10030	

## FERROCART (IRON CORE) IF TRANSFORMERS

Double tuned with low loss trimmers. Black crackle can 1 3/8" square by 3 1/2". Color coded leads.

Input	Output	Set at	Range	Each
12N9689	12N9687	456 KC	360-600 KC	1.65

## PHONO OSC. COIL FOR WIRELESS RECORD PLAYERS

Knob adjustment permits selection of freq. in BC band.

12N10010—1 3/8" square by 3 1/2" high. .... **1.65**

Osc. Coil for Type 6SA7 Unshielded, 456 KC IF. Requires 350 mmfd. padder cond. 365 mmfd. tuning cond. .... **50c**

B.F.O. Coil to supply beat note necessary for CW reception. Range, 290-650 KC; peaked at 456 KC. 1 3/8" sq. x 3 1/2" high. .... **1.44**

## UNSHIELDED UNIVERSAL ADJUSTABLE COILS

Exact inductance of replaced coil covering 550-1715 KC matched easily. Oscillator coil adjustable from 175 to 520 KC. Universal mtg. facilities.

12N10307—Antenna. 12N10309—RF. 12N10310—Osc. Any Type Above, Each. .... **73c**

## PEE WEE TYPE ANTENNA AND RF COILS

Secondaries "progressive" wound with Litz wire on 1/2"x1 1/2" impregnated forms. BC band covers 540-1500 KC with 365 mmfd condenser. Hi impedance primaries and coupling turns complete with ear plug and mtg. brackets.

12N10315—Antenna. 12N10316—RF. Each. .... **51c**

## CARRON RF CHOKES

All purpose RF chokes wound on steatite dowels. Both winding and dowl impregnated, sealed permanently against humidity. Mounted on 6/32" screw placing lugs in easy connecting position.

No.	Induct.	Each	No.	Induct.	Each
12N10208	2.5 mh	} <b>29c</b>	12N10211	10.0 mh	40c
12N10209	5.5 mh		12N10212	30.0 mh	44c
12N10210	7.5 mh		12N10213	60.0 mh	51c

## MEISSNER "PLASTIC" IF COILS

Trimmer base and coil 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 either side of Pre-set frequency, double-tuned. Metal shield can and Litz wire. Unaffected by temperature or humidity. Size 1 1/4" square by 2 1/2" high.



### INPUT

No.	Type	Set at	Type	No.
12N10373	16-6649	175 KC	16-6651	12N10375
12N10376	16-6652	262 KC	16-6654	12N10378
12N10382	16-6658	456 KC	16-6660	12N10384

### OUTPUT

} **82c**

## STANWYCK MIDGET IF

Iron core 455 kc. midgets. Compression tuned, exceptionally high gain due to specially designed powdered iron cores. For general replacement use and new set construction of small AC-DC receivers, auto radios and portables. Overall dimensions of can 3/4" square x 1 7/8" long.

12N10350—Wt. 2 oz. .... **97c**



Midget AM Coil similar to above but with the addition of a plastic base with lug terminals and spade bolt mounting lugs. Overall dimensions of can 3/4" square x 1 7/8" long.

12N10358—Wt. 2 oz. .... **97c**

## MIDGET FM COILS

Newly designed slug tuned FM coils. High quality iron 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" square by 1 7/8" high. Spade bolt mounting.

12N10355—Shpg. wt. 2 oz. .... **1.23**

FM Discriminator. Tunes to 10.7 MC Bandwidth 330 KC peak to peak (plus or minus 165 KC). Output 9 volts with input of 2 volts. 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**

## STANWYCK FM IF 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. 1 3/8" square by 3".

12N10351 ..... **1.91**

FM Discriminator same as above electrically and mechanically. Electrically centered secondary gives perfect symmetry between peaks. For 10.7 mc.

12N10352 ..... **2.15**

FM Ratio Detector coil, same const. as above.

12N10359—Wt. 3 oz. .... **2.26**



## CARRON STANDARD IF TRANSFORMERS

Double-tuned IF transformers with low loss trimmers. Spaced leads eliminate "flutter" under vibration. Frequency 456 KC. In 1 3/8"x1 3/8"x3 1/2" shield can.

12N10147—Input. 12N10148—Output. Either Above, Each. .... **97c**

## LITZ WOUND ANTENNA AND RF COILS

New type bank winding for practically constant gain and selectivity over B.C. band. High impedance primaries. Tune 540-1500 KC with 356 mmfd. condenser. Unshielded type have univ. bracket, stand-off mtg. 1 3/4" centers. Size: 1 7/8"x2 1/4".

### Shielded Type

12N10317—Antenna ..... } **68c**

12N10318—RF ..... }

### Unshielded Type

12N10319—Antenna ..... } **50c**

12N10320—RF ..... }

## OSCILLATOR COIL FOR USE WITH CONVERTER TUBES

Dowel wound type for operation with 455/6 KC IF frequencies. Padding condenser value, 360-470 mmfd.

12N10237 ..... **50c**

## CARRON UNSHIELDED 456 KC OSCILLATOR COIL

Color coded, dowel type wound with cotton covered enamel wire, dehydrated, treated, flash-dipped.

12N10238—Padder value 360-470 mmfd. .... **50c**





**TUFFLEX INSULATION**



Sound absorbing insulating material with innumerable industrial and home applications. May be used for lining the interior of radio consoles, speaker cabinets and phonographs. The unusual thermal insulating qualities of this fabric make it applicable as well for automobile floor or dashboard insulation.

Tufflex Insulation may be used to pad kneeling mats, children's play pens, bassinet pads, plus hundreds of other items. Tufflex is 1/2-in. thick, and is sold in widths of 11 inches. Minimum length sold: 7 feet.

22N20941—7 ft. .... **1.00**  
Longer lengths, per foot. .... **.14c**

**CEMENT KIT**

An efficient cement kit for speaker cones, voice coils, r.f. coils and chokes. One bottle of all-purpose cement, one bottle of thinner, and brush.



17N19499. .... **44c**

**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 attached to bottle cap.

17N15273. .... **35c**

**SHELLAC PATCH STICKS**

For repairing cabinets. All are 7 inches long; in various shades.

17N15523—Light Walnut. 17N15525—Black.  
17N15524—Dark Walnut. 17N15526—Maple.  
Any above. .... **29c**



**GENERAL SCRATCH STIK**

Handy pocket stick for servicemen, removes scratches from radio cabinets in a jiffy. Contains filler and scratch polish.

17N15520—Each. .... **21c**  
10 for. .... **1.89**



**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. .... **73c**



**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 Ivory 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.

17N15527—Shpg. wt. 3 lbs. .... **1.73**



**CABINET TOUCH-UP KITS**

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.

17N15521—Shpg. wt. 3 lbs. .... **2.91**  
Same as above, less Scratch Remover, shellac sticks, lamp and spatula (stains only).  
17N15522—Shpg. wt. 2 lbs. .... **.59c**



**SPEAKER SHIMS**

Non-Magnetic Monel shims. 4 each .004", .006", .008", .010" shims. In plastic case with pencil clip.

22N19649—Each. .... **24c**



**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.

22N14745—Pkg. of 25. .... **24c**



**SPEAKER REPAIR SERVICE**

Speakers reconditioned with new cone. New voice coil installation and alignment. Dust and other annoyances removed. PM's remagnetized. Delivery approx. 30 days. Approx. costs:

4 to 6-in. .... **1.55**      10 to 12-in. .... **2.85**  
7 to 9-in. .... **2.55**      13 — over .... **3.85**

**REPLACEMENT SPEAKER CONES**

Cones not listed may be ordered for replacement. Approximate costs are listed below:

4 to 6-in. .... **1.00**      10 to 12-in. .... **2.20**  
7 to 9-in. .... **1.70**      13 — over .... **3.00**

Popular numbers listed only. We can supply any round or oval cone not listed below. Give make and model, or send old cone.

No.	Type	Model No.	Cost	
<b>4-inch Speaker Cones</b>				
22N19563	1562	Emerson AX211, 4X5-324	} <b>71c</b>	
22N19606	1564	Emerson CT275, 6J5, 368U		
22N19366	1582	Gen. Elec. H508		
22N19372	1555	Oxford (Fada 105-134B, RCA 9TX3)		
22N19369	1616	Utah 4A106A		
22N19370	1619	Zenith 49AG385	} <b>88c</b>	
<b>5-inch Speaker Cones</b>				
22N19441	1626	Chevrolet 985538 (Spkr. 41045)		} <b>88c</b>
22N19446	1589	Crosley 719E, C-648-A		
22N19543	1489	Emerson A130, A132, A148, 149		
22N19462	1584	Emerson D-L-330		
22N19463	1507	Jensen PM5DS, H5S		
22N19466	1387	Quam-Nichols (Air King 260)		
<b>7-inch Speaker Cones</b>				
22N19474	1583	Chevrolet 985-536	} <b>1.26</b>	
22N19504	1617	Zenith 49AB341		
<b>12-inch Speaker Cones</b>				
22N19510	1035	Jensen D7, D8 (11 1/4-in.)	} <b>1.85</b>	
22N19701	1384	Jensen PM12C		
22N19641	1366	Jensen A12		
22N19521	1664	Utah G-12-P, 12PH15-C		
<b>4-inch Speaker Cones for Philco Sets</b>				
22N19534	1542	TH-4 (Pt. No. 36-1469)	} <b>71c</b>	
22N19538	1587	TP4, TP12, PT25		
<b>5-inch Speaker Cones</b>				
22N19682	1244	54, 57 (Pt. No. 36-3029)	} <b>88c</b>	
22N19609	1534	39-6, 39-7		
<b>6-inch Speaker Cones</b>				
22N19549	1500	C1608 (Chrysler)	} <b>1.06</b>	
22N19550	1455	F1540 (Ford), Pt. No. 45-2608		
22N19610	1645	Motorola 50B 24158P, 50B25642-0, 24470		
22N19611	1652	Zenith 49AG 438, 49AG 505		
<b>7-inch Speaker Cones</b>				
22N19516	1557	1708, F194D	} <b>1.18</b>	
<b>8-inch Speaker Cones</b>				
22N19547	1079	20, 21 (Pt. No. 02625)	} <b>1.29</b>	
<b>10-inch Speaker Cones</b>				
22N19529	1248	16B, 14LZX (Pt. No. 02625)	} <b>1.59</b>	
22N19400	1078	87, 40, 41, 65 (Pt. No. 36-3170)		
<b>5-inch Speaker Cones for RCA Sets</b>				
22N19406	1236	R28, 300, 301, 100 (Pt. No. 8987)	} <b>88c</b>	
<b>9-inch Speaker Cones</b>				
22N19405	1124	R32, S2, RE45, E35 (Pt. No. 10801)	} <b>1.44</b>	
<b>Oval Replacement Cones. Size: 4x6 inches</b>				
22N19621	1671	Emerson 9Hs-549A	} <b>1.06</b>	
<b>Size: 6x9 inches</b>				
22N19623	1667	Chevrolet 985695	} <b>1.44</b>	
22N19627	1668	Zenith 49H491		
22N19628	1669	Zenith 49U491		
22N19629	1670	Magnavox 1D2308, RCA 28X5, 1D2412		
<b>UNIVERSAL FIELD COILS</b>				
Fits 5" and 6" speakers. Spacing washers, tubes and directions with coil. Size: Type A 2" OD x 3/4-1" long, hole 3/4" x 1". Type B 1 3/4" OD x 5/8-7/8" long, hole 1/2-3/4".				
Type A	Cost	Ohms	Type B	Cost
22N19461	450	22N19481	} <b>73c</b>	
22N19456	1000	22N19477		
22N19457	1500	22N19478		
22N19458	2000	22N19482		
22N19459	2500	22N19479		
22N19460	3000	22N19480		
<b>WALSCO SPEAKER CONE PATCHES</b>				
Specially fabricated material and adhesive for repairs.				
22N19647	—12 Assorted Patches		} <b>24c</b>	
<b>SPEAKER GRILLE CLOTH</b>				
Handsome frieze, 50" wide, cut to your specified length.				
22N20948	—Per Yard	1.85	22N19496	—12x12" ..... <b>25c</b>
<b>FLOCKED GRILLE SCREENING</b>				
Protective grille for radio, intercom, etc. Won't tear, fray.				
Stock No.	Size	Color	Each	
22N19487	8x11"	Brown	.41	
22N19489	18x24"	Brown	1.62	





# SERVICING NEEDS—CHEMICAL—KNOBS



## 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; † is knurled hole mtg.; \*\* have recessed tops.

No.	Type	Dia.	Ea.	10
11N9655	1	1"	8c	72c
11N9693	2†	7/8"	4c	33c
11N9736	3	3/4"	5c	44c
11N9737	3	7/8"	6c	54c
11N9692	4	3/4"	5c	44c
11N9694	5*	7/8"	3c	27c
11N9695	5**	7/8"	3c	27c
11N9661	6*	1"	4c	33c
11N9696	6**	1"	4c	33c
11N9657	7	3/4"	7c	63c
11N9660	8	1 1/8"	7c	63c

## Pointer and Lever Knobs

Polished Black bakelite. All have filled pointers except "M" (has ridged top). For 1/4" shafts.

No.	Lgh.	Ht.	Type	Ea.	10
11N13027	2"	5/8"	9	9c	72c
11N13028	1 1/4"	9/8"	9	6c	54c
11N13053	1 1/4"	10/8"	10	5c	44c
11N13024	1 1/4"	10/8"	10	7c	63c
11N9650	1 1/2"	3/8"	11	8c	72c
11N9651	2 1/2"	3/8"	11	10c	90c

\*Red Bakelite.



## AMPHENOL "LIQUID-912"

15. Polystyrene base. Asynthetic resin that is non-hygroscopic and has low-loss factor. Ideal for high frequency coils. Prevents humidity variations from altering your calibrations or log positions. Keeps metallic dust particles from coils. Use on antenna connections.

17N15362—2 oz. bottle.....29¢  
 17N15363—4 oz. bottle.....38¢  
 "916-2" Thinner for "912"  
 17N15364—2 oz. bottle.....15¢  
 With brush.....15¢



## FLOCK SPRAY OUTFIT

Easy to operate. Beginners can turn out professional velvet-like flock jobs. Contains spray gun, ivory and brown felt flock, undercoats to match, thinner, brush.

17N15489—Outfit. Shpg. wt. 3 lbs.....5.59  
 17N15490—Spray Gun Only.....2.32  
 1 1/2 oz. sifter can felt flock.  
 17N15479—Brown 17N15481—Ivory  
 17N15480—Red 17N15482—Green  
 Any above, each.....59¢  
 EXTRA CONTAINERS of felt flock, 3/4 oz. each (1 oz. covers 1 1/2 to 2 square feet).  
 17N15491—Brown 17N15492—Ivory  
 17N15493—Red 17N15494—Green  
 Any above, each.....97¢  
 EXTRA UNDERCOATS—acts as colorbase, etc. 1/2 pint cans—cover appr. 10 sq. ft.  
 17N15495—Brown 17N15496—Ivory  
 17N15497—Red 17N15498—Green  
 Any above, each.....97¢  
 EXTRA THINNER—use to clean brush and thin out undercoat. 1/2 pint can.  
 17N15499—Thinner.....32¢

## MIDGET KNOBS

12. With and without the pointer illustrated. For small sets. 1/8" dia. Set screw. 1/4" shaft.

With Without 10  
 Color Pointer Pointer Ea. For  
 Walnut 11N9676 11N9680 6c 54c  
 Ivory 11N9677 11N9681 6c 54c  
 Red 11N9678 11N9682 6c 54c  
 Black 11N9679 11N9683 6c 54c

## KIT OF 50 KNOBS

13. Assorted sizes and colors in new, modern 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 consists of 12 set screw type, 18 knurled shaft type and 20 flatted shaft spring type.

11N9662.....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 puller behind the knob and pull it off. Saves time, the cabinet, and the knob. Have one in your shop and in your tool kit!

18N15042.....15c

## RADIO SERVICE CEMENT

16. For cementing replacement cones and repairing torn cones. Used on glass, to hold wires in place, etc. Vibration-Proof, Waterproof, Fast-Drying.

17N15314—2 oz. bottle, brush attached to cap. Each.....29c  
 17N15315—4 oz. bottle.....53c  
 17N15316—8 oz. bottle.....94c  
 17N15317—1-pt. bottle.....1.76

## ALL-PURPOSE CEMENT

17. For speaker cones, bakelite, metal, wood, hard-rubber, etc.

17N15310—2-oz. size.....32¢  
 17N15311—8-oz. size.....94c  
 17N15312—1-pt. size.....1.76

## AIR DRYING FINISHES



Here's good news for servicemen! Now you can get truly professional-looking finishes in either crystal, wrinkle or smooth with these new, efficient air-drying finishes. 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 Lacquer (Crystal)

No.	Each	Color	No.	Each
17N15259	35¢	Black	17N15309	1.03
17N15319		Gray	17N15387	
17N15320		Brown	17N15388	
17N15380		Red	17N15389	

## Wrinkle (Varnish) Finish

17N15381	35¢	Black	17N15390	1.03
17N15382		Red	17N15391	
17N15383		Gray	17N15392	

## Telephone (Smooth) Finish

17N15384	29¢	Black	17N15393	73¢
17N15385		Gray	17N15394	

## Thinner for above Finishes

17N15396 23 Thinner 17N15397 50



## WALSOL PLASTIC CEMENT

18. Cements plastics, metal, wood, glass, etc. Dries fast. Strong bond. Waterproof and heat resisting. Especially made to repair broken plastic cabinet knobs, grid caps, etc. Brush attached to cap. Walsol No. 42, 2-oz. bottle.

17N15321.....32c

## Essential to Servicemen!

## KROMALL

19. KROMALL gives that smooth satiny appearance and provides a finish that can hardly be distinguished from metal. Easy to apply—shows no brush marks or laps, flows to a beautiful chrome-like finish. Set within 20 minutes, dries fast in 4 hours.

17N15305—4-oz. bottle.....23c  
 17N15306—16-oz. bottle.....60c

## "WALSOLUB B"

20. New chemical lubricant that instantly eliminates noise on handswitches, controls and other air-exposed contacts. Superior to graphite. Comes in convenient dispenser tube.

17N15378.....29¢

## DUCO CEMENT

21. Excellent for repairing speaker cones, cementing grille cloths, etc.

Lots of 12.....19c ea.  
 17N15257.....21c

## CONTACT CLEANING FLUID

22. Prepared to clean tuning condenser springs, volume controls, band switches, etc. Prevents corrosion of contacts. In handy 2-oz. bottle with brush.

17N15377.....24¢  
 Each.....24¢



## RADIO CHEMICAL KIT

23. A complete kit of 8 chemical necessities for servicemen in leatherette pocket case. Service cement, Rubber Drive Cement, Carbon-X, Grafoline, Scratch Polish, Non-Slip Compound, Dial Oil, and Contact Cleaner. Applicator attached to cap of each container for ease in use.

17N15529.....1.76

## COIL DOPE KIT

24. Has a polystyrene 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, 1-oz. bottle of special thinner and two brushes.

17N15313—Shpg. wt. 1 lb 47¢



## FELT-KOAT KIT

25. A "must" for every serviceman! Complete Flock Finish Kit for applying soft felt-like flock to phono turntables, displays, tool chests, lamp bases, and wire mesh on speaker, grills, etc. Produces heavy soft velvet-like coat that prevents scratching. Easy to apply. Deluxe Kit containing Brown flock, applicator, undercoat, thinner and brush.

17N15258.....1.47

## COLOR CODING ENAMEL

26. 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 greatly to appearance of equipment.

17N15258.....44¢

## CARBON-X FOR CONTROLS

27. Useful both as an electrical conductor and as a practical method of touching up worn and noisy spots on carbon controls.

17N15531—1 oz. Bottle.....44c  
 17N15532—2 oz. Bottle.....59c

## LUBE-REX CONTACT CLEANER

28. Ideal for attenuators, push button switches, etc., as well as Philco Mystery Controls. Cleans contacts and prevents corrosion. Moisture-repellant, rust preventing—clings to metal.

17N15533—2 oz. Bottle.....29¢  
 17N15534—Pint Bottle.....1.32

## GRAFOLINE

29. Especially designed for noisy controls, switches, and wire wound controls. Merely apply to equipment and noises cease.

17N15535—2 oz. Bottle.....29¢  
 17N15536—Pint Bottle.....1.18





**MUELLER CLIPS AND PLASTIC INSULATORS**

Spring-actuated clips Type 27 and 27C are laboratory types with mesh teeth on three sides, others have teeth in front only. Insulators listed opposite proper size clip. Clips marked + and - (5 each, 10 to a box). Insulators come 5 red and 5 black.

Clips				Insulators				
No.	Type	Size	Each	10 For	No.	Type	Each	10 For
17N16029*	45	1 1/2"	.05	.39	17N16031	47	.11	.73
17N16030†	45C	1 1/2"	.07	.59	17N16031	47	.11	.73
17N16032*	48B	2"	.05	.44	17N16033	49	.11	.73
17N16034†	24A	3"	.10	.83	17N16035	26	.23	1.57
17N16026*	27	2 1/2"	.08	.68	17N16028	29	.17	1.18
17N16027†	27C	2 1/2"	.13	1.18	17N16028	29	.17	1.18
17N16018†	21A	4"	.14	1.27	17N16019	23	.32	2.25

\*Cadmium plated steel. †Lead coated steel. ‡Solid copper.

**No. 85T MUELLER CROCODILE TIP CLIP**



For connecting Bridges, Voltmeters, etc., or anything having binding posts with non-removable heads. Fine for test prods.

- 17N16023—11c.....10 for **98c**
- No. 85. As above, less phone tip. **44c**
- 17N16020—5c.....10 for **65c**
- Plastic insulator for either of the above No. 87.
- 17N16021—10c.....10 for

**MUELLER WEE-PEE-WEE CLIP**



Non-ferrous R.F. Clip. Will not heat in high frequency circuits. Ideal for tapping coils. Length 1 1/2". Completely insulated with Red or Black jacket (specify color desired. No. 88-93).

- 17N16022..... **16c**
- 10 for..... **1.32**

**MUELLER "TWIN-CLIP"**



An entirely new and different type of clip—has jaws on both ends! Adaptable to over a hundred different uses. In electrical work makes a quick splice, re-connects a broken lead, etc.

- Numerous mechanical uses include: holding or racking parts in industrial processing, holding identification or record cards, or articles for display. **8c**
- 17N16025—Each..... **8c**
- 10 for..... **69c**



**FAHNESTOCK CLIPS**

Fahnestock clips used where connections must be made and broken a great deal. No tools required to make connection. Grips wire with right pressure for good electrical contact without injury to wire. All are nickel-plated brass except which are nickel-plated bronze. All are 3/8" wide except\* which are 1/8".

Stock	Fig.	Lgth.	Max. Wire	Miq. Hole	10 For	1000 For
17N14824	B	1"	No. 10	No. 8	8c	6.40
17N14828	C	1 1/8"	No. 10	No. 8	14c	9.40
17N14826	A	1 3/4"	No. 10	No. 8	36c	29.00
17N14823*	B	3/4"	No. 14	No. 6	7c	5.60
17N14825*	A	1 1/2"	No. 14	No. 6	30c	24.80
17N14820†	D	1 3/8"	No. 10	Copper lug	44c	34.20
17N14821	E	3/4"	No. 12	No. 6-32	13c	8.50

**SCREEN GRID CLIPS**

Miniature Clips for Metal Tubes. With wire ferule. **2c**



For Glass Tubes

- For Standard Glass Tubes. **2c**
- 17N14910..... **2c**
- 12 For..... **10c**
- 100 For..... **75c**

**ANGLE BRACKETS**

Heavy gauge steel. With Tapped Holes. One 8/32 tapped hole, one 5/32 plain hole.

Stock No.	Size	Each	10 For
17N14909	1/2x1/2"	3c	27c
17N14910	1/2x5/8"	3c	27c
17N14911	1/2x3/4"	4c	36c

**BATTERY CLIPS**

Good quality spring clip. Heavily plated steel body. Strong spring.



- 17N16061—2" long. **3c**
- Each..... **3c**
- 17N16062—2 1/2" long. **5c**
- Each..... **5c**
- 17N16063—3 3/8" long. **7c**
- Each..... **7c**

**THREADED RODS**

Brass threaded rod for making your own long screws. Easily cut to any length. 12" lengths. 17N14913—6-32 size. Per lgth. **18c**

17N14914—8-32 size. Per lgth. **18c**

17N14918—10-32 sz. Per lgth. **24c**

**GOAT TUBE SHIELDS AND CLIPS**

Shield automatically grounds to tube base on metal based tubes—vertical grooves provide snug, positive fit on tubes. Choice of smooth, seamless models, open or closed tops. All shields are of spring tempered steel.

**Tube Shields**

No.	Fig.	For Use With	Each	10 For
17N13256	A	Large GT	.06	.48
17N13257	B	Large GT	.06	.48
17N13246	A	Small GT/G	.06	.48
17N13247	B	Small GT/G and Loktal	.06	.48
17N13259	C	All GT	.03	.24
17N13265	C	Loktal	.03	.24
17N13263	D*	Min. TS 1/2"	.07	.59

\*Includes ground clip.

**Ground Clips**

- (E) Hard Brass ground clip. 17N13266—Each..... **01c** 10 for **8c**
- (F) Tempered steel ground clip. 17N13267—Each..... **02c** 10 for **16c**

**"1000 PLUS" HARDWARE KIT**

All-purpose kit for shop and home use alike! Over 1000 pieces of the most-often used hardware conveniently packed in a compartment box. Contains 125 each assorted 6-32, 100 8-32, 25 10-32 machine screws; 100 6-32, 100 8-32, and 25 10-32 nuts; 100 assorted wood screws; 150 rivets, eyelets; 100 washers, grommets, etc.; 100 metal washers, lockwashers, lugs, etc. Box size: 7 1/2x4". Unusual value at this low price! **1.49**



**BUMPER FEET**

Of felt, with No. 6 P-K screw for mounting. Felt is permanently clamped in place by metal ring 3/4" in diameter. 17N14757—Each..... **3c**



- 10 For..... **25c**
- 100 For..... **1.96**

**SPLIT LOCK WASHERS**

- 17N14791—For No. 6 screws. **8c**
- 17N14792—For No. 8 screws. **10c**
- 17N14793—For No. 10 screws. **15c**
- 25 for..... **7c**



**STEEL SCREWS & WASHERS**

10/32 oval head screws. Cup washer, also 10/32 matches screw head. Pkg. of 12. 17N14775—1/2"..... **6c**

- 17N14776—1"..... **8c**
- 17N14777—Washers..... **7c**

**JOHNSON TUBE CLAMP**

Holds tube securely. For 1 3/8" dia. tube. 13N13157..... **21c**



**CABLE CLAMPS**

Heavy gauge steel. No. 6 mtg. hole. Plated. 17N14951—1/4"..... **4 for 3c**

- 17N14952—1/2"..... **3 for 5c**

**WING NUTS**

- Per 10 **31c**
- 17N12926—6-32 17N12928—10-32
- 17N12927—8-32 17N12929—1/4-20
- Per 100 (assorted)..... **2.90**

**RUBBER INSULATED CLIP**

Soft rubber outer covering. Each with approx. 12" lead. No. Type Ea. 17N11620—For 866, etc. **16c**

**BELDEN TERMINAL ASSORTMENT**

100 most popular solder terminals. 17N14790..... **53c**



**HOLE PLUGS**

10 asst. sizes snap button hole plugs up to 1/2" thick. 17N14837—Per 10 Asst. **24c**



**METAL & GLASS TUBE CAP**

11" lead and pintip. Red and black. Specify color with order. 17N11728—Ea. .... **15c**



**MOUNTING LUGS**

Hole in flat end for 6/32 screw; threaded end 6/32. 17N14955—Per 10..... **8c**

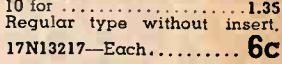
- Per 100..... **45c**



**METAL TUBE CAP SHIELDS**

For screen grid metal tubes. Bakelite insert prevents shorting. 17N13216—Each **15c**

- 10 for..... **1.35**
- Regular type without insert. 17N13217—Each..... **6c**



**RIVET-EYELET PUNCH SET**

Hardened steel tools. Cast iron holder. Hex sides to grip in vise. With rivets and eyelets. 18N15045—Ea. **2.35**

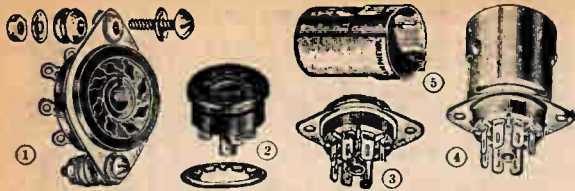
**Rivet—Eyelet Assortment**

18N15066—100 assorted rivets and eyelets. Each..... **47c**





# QUALITY ALL-PURPOSE TUBE SOCKETS



## AMPHENOL FLOATING OCTAL SOCKETS

1. Live rubber grommets fit into mounting holes—cushion socket for vibration-free operation. Black bakelite dielectric. Mounts in 1 3/16" round hole above or below chassis. Two 1/4" screw holes on 1 1/2" centers. Comes complete with 4 rubber grommets, 2 mounting screws, plus nuts and washers. **23¢**  
**13N13158—Floating Octal Socket, 77-MIP-8FK**

KIT for making floating connections using MIP sockets. Contains 4 grommets, 2 mounting screws, nuts and washers. **14¢**  
**13N13159—Floating Octal Kit. 11-3K**

## AMPHENOL MINIATURE TUBE SOCKETS

2. For the new RCA, ce'tron baby tubes, and new miniature tubes of all makes for use in hearing aids, pocket radios, remote controls, measuring devices, etc. All mounting holes 5/8". Correct retainer ring supplied with each socket listed. FOR RCA TUBES: Designed for the 1S4, 1S5, 1T4 and 1R5, etc.

**13N13173—(2) Black Bakelite Tube Socket. 78-7P. 13¢**  
**13N13172—Molded Polystyrene for UHF Work. 54-7P. 25¢**  
**FOR PHOTO CELLS: Fits RCA Pee-Wee and the Cetron CE-5BB, CE-20 photo cells. Sturdily made of black bakelite. 10¢**  
**13N11599—Three Prong Tube Socket. 78-S35**

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" chassis hole, mounting centers 7/8", screw holes 1/8". 59 Series mount is 3/4" chassis hole, mounting centers 1 1/8", rivet holes .095". Top mountings (4) include tube shield base; bottom mountings (3) do not.

**13N12576—7-pin Bakelite Socket #147-500. Bottom mtg. 14¢**  
**13N12577—9-pin Bakelite Socket #59-409. Bottom mtg. 23¢**  
**13N12578—7-pin Mica-filled Bakelite #147-913. Top mtg. 24¢**  
**13N12579—9-pin Mica-filled Bakelite #59-407. Top mtg. 34¢**

**5. TUBE SHIELD AND SPRING ASSEMBLIES for above.**

**13N12580—Assembly for 7-pin socket. Height 1 3/8". 8¢**  
**13N12581—Assembly for 7-pin socket. Height 1 3/4". 8¢**  
**13N12582—Assembly for 9-pin socket. Height 1 1/2". 12¢**  
**13N12583—Assembly for 9-pin socket. Height 1 15/16". 14¢**  
**13N12584—Assembly for 9-pin socket. Height 2 3/8". 14¢**

## AMPHENOL STEATITE SOCKET

Take higher temperatures without absorbing moisture. Silver-plated phosphor bronze contacts for low-resistance connections.

No.	Prongs	Each	No.	Prongs	Each
13N13194	4	28¢	13N13197	7S	28¢
13N13195	5	28¢	13N13198	7L	35¢
13N13196	6	28¢	13N13199	8 Octal	28¢



## MIDGET WAFER SOCKETS

8. Laminated bakelite. Heavily plated self-aligning, floating one-piece contacts.

**13N13114—4 prongs. All have 1 1/2" mtg. centers. 6¢**  
**13N13115—5 prongs. 10 for 54¢**  
**13N13121—6 prongs. Cost, Ea. 6¢**  
**13N13122—7, small**  
**13N13125—7, large**  
**13N13127—8, octal**  
**13N13075—8, loktal**

**MINIATURE WAFER for compact glass tubes (3/8" dia.) 7 pin type. Mtg. center 7/8". 13N13097—Ea. 8¢ 10 for .72¢**

## JOHNSON MINIATURE SOCKETS AND SHIELDS

10. Sturdily constructed miniature sockets designed for use with the 9000 series and Miniature series tubes, including the 1S4, 1S5, 1T4 and many others. Contacts are of phosphor bronze, heavily silver-plated—self-aligning type. Expressly made to permit a minimum amount of capacity between contacts. Unusual construction insures exceptionally low loss.

**13N13186—Miniature Socket Type 267. 29¢**

11. STEATITE SOCKET WITH SHIELD BASE: Includes metal ring which extends upward to form a shield base.

**13N13219—Shield Base Socket Type 277B. 44¢**  
**13N13220—Shield Base Only. Type 277S. 9¢**  
**13N13221—1 3/8" Shield #278A for types 277B or S. 12¢**  
**13N13222—1 3/4" Shield #278B for types 277B or S. 12¢**

# AMPHENOL BAKELITE STANDARD

## TUBE SOCKETS

Type (5): for replacement work. Has steel adaptor plate for mounting centers from 1 1/2" to 1 7/8". Type 6: for new work. Needs single 1 1/8" hole—held in place with easy-to-mount retainer ring. 9 and 11 prong sockets are for Amphenol connectors. 7C sockets fit small and large base tubes.

Type 5	Type 6	Prongs	Each
13N13057	13N13207	4	8¢
13N13058	13N13208	5	8¢
13N13059	13N13209	6	8¢
13N13060	13N13210	7S	8¢
13N13061	13N13211	7L	8¢
13N13056	13N13237	7C	10¢
13N13050	13N13212	8 octal	10¢
13N13040	13N13045	8 loktal	13¢
13N13041	13N13213	9	12¢
13N13042	13N13214	11	17¢

(7). RECEPTACLE SHELL: For all type 6 above except 7L & 7C. **13N13110—Amphenol 23-IS Receptacle Shell. 7¢**

## AMPHENOL "MIP" SOCKETS

Molded from high-dielectric black bakelite, with molded-in plate for 1 1/2" mounting centers. Superior quality sockets, strong and dependable. Will not rattle or come loose from its connection.

No.	Prongs	Each	No.	Prongs	Each
13N13164	4	7¢	13N13168	7 large	8¢
13N13165	5	7¢	13N13169	8 octal	8¢
13N13166	6	7¢	13N13223	9	11¢
13N13167	7 small	7¢	13N13224	11	14¢

**MIDGET "MIP" SOCKETS: Smaller, with 1 5/16 mtg. centers.**  
**13N13225—Octal, 8-pronged type. 8¢**  
**13N13243—Midget "MIP", Loktal type. 12¢**

## AMPHENOL POLYSTYRENE SOCKET

For U.H.F. work. Molded polystyrene base. 1 1/8" hole—1 1/2" centers. Caution: solder fast! Do not heat beyond 200° F.

**13N13170—Octal 8 prong. 28¢**  
**13N13160—Loktal 8 prong. 32¢**

## MAGIC EYE ASSEMBLY

6-prong type requires 6E5 or 6G5 tube for 6.3 volt sets; 2E5 for 2.5 volt sets. 8 prong type takes all octal base-eye tubes. All types are easily installed, come with complete instructions.

**13N11480—6-prong type. MEA-6. 89¢**  
**13N12645—8-prong type. MEA-8. 89¢**  
**13N11481—Escutcheon for octal type. 21¢**  
**13N11482—Escutcheon for 6-prong type. 18¢**

## MILLEN STEATITE SOCKETS

Barriers separate lugs for hi-voltage.

**13N8045—#33004, 4-prong type. 30¢**  
**13N8046—#33005, 5-prong type. 30¢**  
**13N8047—#33006, 6-prong type. 30¢**  
**13N8048—#33008, Octal type. 30¢**



## JOHNSON STEATITE UHF SOCKET #122-101

12. 7-pin wafer socket with base shield, retainer spring and provision for mounting button mica capacitor directly to socket to keep leads short. Small grid coils may be mounted on terminal ends for tank circuit use. 4 mtg. holes 2.312" between centers. For UHF use with tubes 826, 829, 832, etc.

**13N14159—Shipping weight 1/2 lb. 1.76**

## JOHNSON 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. 1 7/8" mtg. ctrs.

**13N14158—Size: 2 5/8" Square. Each. 65¢**

## JOHNSON LOW-ABSORPTION BASE SOCKETS

13. Ceramic base with cadmium-plated heavy phosphor bronze contacts. Double filament springs, heavily nicked brass shells.

**13N14160—UX Base Socket, 123-210. 88¢**  
**13N14161—50-Watt Base Socket, 123-211. 1.09**  
**13N14157—Giant 5-prong type for RCA 803, RK 28, etc. 1.76**

## JOHNSON 275 STEATITE INSULATED SOCKET

14. For Eimac type 4-125A and 4-250A tubes. Contacts cadmium-plated, reinforced with cadmium plated steel springs. Metal parts counter sunk and mounting holes bossed for panel mounting. 5 prong 2 27/32" square, with 3/8" mtg. holes on 2 1/4" ctrs.

**13N14156—Each. 1.03**

## JOHNSON 247 STEATITE WAFER SOCKET

7-pin socket for 829, 826, etc. With aluminum base shield.

**13N13187—Each. 73¢**



### CABLE CONNECTORS

1. With shield caps, rubber grommet end opening.

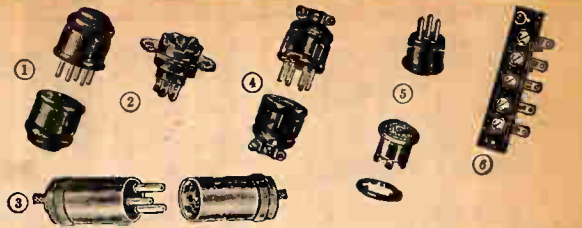
Female	Male	Cont.	Each
13N11475	13N11471	4	18c
13N11476	13N11472	5	18c
13N11477	13N11473	6	18c
13N11478	13N11474	7S	18c
13N11491	13N11490	8 Oct.	21c
13N11508	13N11506	9	23c
13N11509	13N11507	11	28c

### SHIELDED SOCKETS

2. Similar to Type 5 sockets but with shield. Gives completely shielded connection when used with shielded male connector. Easily mounted.

13N12704—3-contact type	21c
13N12705—4-contact type	21c
13N12706—5-contact type	24c
13N12707—6-contact type	24c

### PLUGS, CONNECTORS, T.V. SOCKETS



### MINIATURE CONNECTORS

3. Molded bakelite in cadmium plated brass shells. For cables up to 1/4". Shield can be soldered to shell when used with shielded cable. 1/8" inches in diameter by 1 1/8" inches long.

Male	Female	Cont.	Each
13N13335	13N13337	3	21c
13N13336	13N13339	4	24c
13N13333	13N13334	5	26c
13N13338	13N13340	6	26c

### CABLE CLAMP TYPE

4. Same as Type 1, but with clamp to relieve cable strain. Cables to 1/8" diameter.

Female	Male	Cont.	Each
13N11684	13N11692	4	22c
13N11685	13N11693	5	22c
13N11686	13N11694	6	22c
13N11687	13N11695	7S	22c
13N11688	13N11696	7L	22c
13N11689	13N11697	8 Oct.	24c
13N11690	13N11698	9	26c
13N11691	13N11699	11	31c

### MINIATURE PLUGS, SOCKETS

5. Interchangeable Type 3 connectors. Sockets have push-on mounting rings—can be used with Type 4 shielded plugs. Plugs may also be used with Type 3 connectors.

Sockets	Plugs	Con.	Ea.
13N11599	13N12708	3	9c
13N12701	13N12709	4	9c
13N12702	13N12710	5	12c
13N11542	13N12711	6	12c

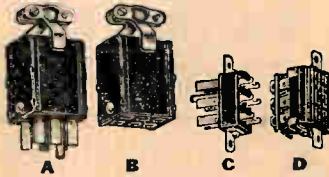
### TERMINAL STRIPS

6. Superior quality bakelite terminal strips. Solder lugs mounted on 1/8" thick insulation. Available with 2, 3, 4 or 6 solder terminals. Single 6-32 mounting hole.

No.	Term.	Ea.	10 for
13N13145	2	6c	.54
13N13123	3	9c	.81
13N13112	4	11c	.99
13N13113	6	16c	1.44

### JONES PLUGS, SOCKETS

Multiple contact — "400" series heavy duty (25 ampere) and "300" series standard duty (5 ampere) sizes. Cable type have clamps. Chassis type have brackets — heavy duty type at ends, standard type at sides.



#### Type A Plugs

Contacts	Standard Duty		Heavy Duty		Stock No.	Cost Each	Stock No.	Cost Each
	Stock No.	Cost Each	Stock No.	Cost Each				
2	13N12460	.31	13N12400	.53	13N12466	.31	13N12412	.56
4	13N12461	.36	13N12401	.64	13N12467	.36	13N12413	.72
6	13N12462	.40	13N12402	.75	13N12468	.42	13N12414	.86
8	13N12463	.44	13612403	.85	13N12469	.48	13N12415	1.01
10	13N12464	.50	13N12404	.96	13N12470	.55	13N12416	1.15
12	13N12465	.54	13N12405	1.08	13N12471	.62	13N12417	1.31

#### Type B Sockets

Contacts	Standard Duty		Heavy Duty		Stock No.	Cost Each	Stock No.	Cost Each
	Stock No.	Cost Each	Stock No.	Cost Each				
2	13N12478	.15	13N12406	.37	13N12479	.21	13N12407	.48
4	13N12479	.21	13N12407	.48	13N12480	.25	13N12408	.59
6	13N12475	.26	13N12429	.56	13N12481	.30	13N12409	.70
8	13N12476	.30	13N12430	.64	13N12482	.35	13N12410	.81
10	13N12477	.34	13N12431	.70	13N12483	.42	13N12411	.92

#### Chassis Type Plug (C)

Contacts	Stock No.	Cost Each	Stock No.	Cost Each
2	13N12472	.14	13N12426	.33
4	13N12473	.19	13N12427	.41
6	13N12474	.23	13N12428	.48
8	13N12475	.26	13N12429	.56
10	13N12476	.30	13N12430	.64
12	13N12477	.34	13N12431	.70

#### Chassis Type Socket (D)

Contacts	Stock No.	Cost Each	Stock No.	Cost Each
2	13N12478	.15	13N12406	.37
4	13N12479	.21	13N12407	.48
6	13N12475	.26	13N12429	.56
8	13N12476	.30	13N12430	.64
10	13N12477	.34	13N12431	.70

### HEAVY BAKELITE STRIPS

7. Type 140: 7/8" wide 1 1/2" high. Terminals mounted on 3/8" centers, 1/4" metal to metal spacing over bakelite body. Type 141: 1 1/8" wide, 1/2" high. Terminals mounted on 3/8" centers, with 3/8" metal to metal spacing over bakelite. See chart at right.

### SCREW, COLLAR TERMINALS

8. 7/8" wide.

No.	Term.	Ea.	10 for
13N13140	2	11c	.99
13N13141	3	14c	1.26
13N13142	4	17c	1.53
13N13143	5	20c	1.80
13N13144	6	23c	2.07
13N13230	7	26c	2.34
13N13231	8	29c	2.61
13N13232	9	32c	2.88
13N13233	10	35c	3.15

No. 140		No. 141	
No.	Term.	No.	Term.
13N12527—14c	2	13N12539—18c	3
13N12528—20c	3	13N12540—25c	4
13N12529—25c	4	13N12541—31c	5
13N12530—30c	5	13N12542—37c	6
13N12531—34c	6	13N12543—44c	7
13N12532—40c	7	13N12544—52c	8
13N12533—45c	8	13N12545—58c	9
13N12534—51c	9	13N12546—65c	10
13N12535—56c	10	13N12547—73c	11
13N12536—61c	11	13N12548—79c	12
13N12537—66c	12	13N12549—85c	

### BAKELITE MOUNTING STRIP

9. Mounts parts on chassis.

Stock No.	Lugs	Each	10 for
13N13124	1	2c	14c
13N13133	2	3c	16c
13N13134	3	3c	19c
13N13135	4	4c	31c
13N13137	6	5c	45c



### 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. Constructed of die cast zinc and machined brass shells, silver plated. Made for all practical applications. 2-pc. straight plug with low-loss mica-filled insert.

13N11550—Straight Plug 83-1SP	82c
Receptacle chassis or box type. Low-loss mica-filled insert.	
13N11551—Receptacle Chassis 83-1R	1.21
Angle plug adapter. Polystyrene insert, pin and socket.	
13N11552—Angle Plug Adapter 83-1AP	1.46
"T" connector for receptacle chassis above. Factory wired.	
13N11553—"T" Connector 83-1T	1.80
Function for use with straight plug above. Double contact.	
13N11554—Junction 83-1J	1.14
Feed Thru Connector, similar in appearance to junction above but threaded full length. 2 hex nuts plus polystyrene insert.	
13N11555—Feed Thru Connector 83-1F	1.72
Hood for RG cables 8/U, 10/U, 11/U, 22/U, 63/U, 65/U.	
13N11556—Hood 83-1H	14c
Adapter for small cable RG59/U. Use with straight plug.	
13N11557—Adapter 83-188	21c
Adapter for small cable RG58/U. Use with straight plug.	
13N11558—Adapter 83-185	21c

### STANDARD SPEAKER PLUGS

10. 1-piece molded bakelite. Choice of from 4 to 8 prongs. Speaker cables easily wired.

13N11512—4-prong type	8c
13N11513—5-prong type	
13N11514—6-prong type	
13N11515—7-prong type	
13N11516—8-prong type	

### PLUGS AND RECEPTACLES

11. Shielded 2 pole, 1/2" clamp.

N11546—Receptacle.	32c
N11545—Sid. Plug.	
N11647—Polarized Plug.	
Shielded end outlet, less clamp.	
N11651—Receptacle.	28c
N11652—Sid. Plug.	
N11653—Polarized Plug.	

### AMPHENOL RECEPTACLES AND PLUGS

Molded black bakelite insulation 2-pole receptacles with one elongated hole—may be used with both standard and polarized type plugs having one 1/4" and one 3/8" blade, 3-pole receptacles are for use with 3-pole plugs. Underwriters ratings: 15A—125V or 10A—250V. Dimensions: (A) Hole—1.172" (B) Mtg. ctrs.—1 1/2 to 1 7/8", (C) Hole—1 3/8", Mtg. Ctrs. 1 3/4".

Plain Type, Ill. (A)				With Plate, Ill. (B)			
No.	Pole	Type	Cost	No.	Pole	Type	Cost
13N11502	2	Recept.	18c	13N11500	2	Receptacle	20c
13N11503	2	Standard	18c	13N11501	2	Standard Plug	20c
13N11624	2	Polarized	18c	13N11627	2	Polarized Plug	20c
Flush Type, Ill. (C)							
13N11625	3	Recept.	25c	13N11504	2	Receptacle	28c
13N11626	3	Polarized	25c	13N11505	2	Standard Plug	28c
				13N11635	2	Polarized Plug	28c

### C-R TUBE SOCKET

12. Magnol Type C-R socket with 11 silver-plated contacts. Provided with substantial barriers between each contact to increase the leakage path thus minimizing loss and reducing possibility of voltage breakdown. Comes complete with retainer ring for direct chassis mounting.

13N13185—Tube Socket	71c
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### AMPHENOL DUODECAL, DIHEPTAL TUBE SOCKETS

For TV and cathode-ray tubes. Individual contact wells for creepage barriers. Removable cap prevents shock. Bakelite body.

13N13190—Duodecal Socket, Circle Diameter 1.063"	92c
13N13191—Diheptal, Small—for 2.050" D. Tube Base	98c
13N13192—Diheptal, Medium—for 2.250" D. Tube Base	



# PLUGS, JACKS AND CONNECTORS



## LONG FRAME JACKS

1. Extend  $3\frac{1}{2}$ " behind panel. Have pure silver contacts as well as bakelite separators. No. 1 Open Circuit. 13N6400—Each..... **38c**  
 13N6401—No. 2 Circuit Closing. 13N6402—No. 2A. Two Circuit long frame jack. Either type, Each..... **47c**

## ICA SHIELDED 3 WAY JACK

2. Phosphor bronze spring jack. Nickel brass shell. 13N13520—Each..... **88c**  
 13N13522—Jack, less shell. Each..... **44c**

## MALLORY JUNIOR JACKS

3. Compact, extend only  $1\frac{1}{2}$ " behind the panel. Equipped with heavily-plated springs. No. 701—Open Circuit. 13N6450—Each..... **32c**  
 13N6451—No. 702. Circuit clos. 13N6449—No. 702A. Two circuit. 13N6435—No. 702B. Three circuit microphone jack. Each, any type..... **44c**  
 13N6452—No. 703. Single circuit filament control. 13N6459—No. 703A. Cir. reverse 13N6466—No. 703B. 3 circuit mike, 1 circuit closing. Each, any type..... **50c**  
 13N6453—No. 704. Interstage. 13N6478—No. 704A. Two circuit filament control. Each..... **59c**  
 13N6479—No. 705. Two-circuit filament lighting. Each..... **68c**  
 13N6448—No. 706. Interstage filament control. Each..... **73c**



## HIGH VOLTAGE PLUGS & JACKS

Heavy duty type, in medium and giant sizes. Handle 1000 volts at 10 amps. For use with high R.F. currents, diathermy work, x'mitters, etc. Insulated threaded heads and handles. Hardware furnished with jacks. Medium jacks for panels up to  $\frac{3}{8}$ " thick; giant jacks for panels up to  $\frac{3}{8}$ " thick. Medium Plugs— $2x\frac{1}{2}x3\frac{3}{8}$ ". 13N12870—Black and Red 13N12871—Black Each type..... **32c**  
 Medium Jacks— $2x3\frac{3}{8}$ ". 13N12872—Black and Red 13N12873—Black Each type..... **56c**  
 Giant Plugs— $2x1\frac{1}{2}x3\frac{3}{8}$ ". 13N12785—Black and Red 13N12786—Black Each type..... **44c**  
 Giant Jacks— $2\frac{1}{4}x3\frac{3}{8}$ ". 13N12787—Black and Red 13N12788—Black Each type..... **68c**



## WALSCO MINIATURE PLUG AND JACK

Two-Conductor precision army type. Needs no screws, molded plastic case cements together. Ideal for hearing aids, speaker extensions, etc.

13N14961—Plug only (type PL-291). Each **24c**  
 13N14962—Jack only (type JK-48). Each **24c**

## SIGNAL CORPS TYPE JACKS

4. Phone Jack: Like Sig. Corps type 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..... **32c**  
 Mike Jack: Three circuit. Like Sig. Corps No. JK-33A. Takes W. E. 109; Sig. Corps No. PL-46, PL-68, PL-168. 13N6301—Each..... **38c**

## MALLORY MIDGET JACKS

5. Extremely compact. Mount in  $\frac{3}{8}$ " hole. Type A-1 "Infant" jack is not illustrated.

No.	Part	Type	Ea.
13N6182	A-1	Open circuit	18c
13N6183	A-2	Wir. closing	29c
13N6184	A-2A	2 circuit	32c
13N6185	A-3A	Cir. Reverse	47c

## Grounding Jack

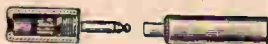
No. GJ-1—For grounding airplanes while re-fueling. Similar to midget jack No. A-1, except for insulation.

13N6339—Each..... **26c**

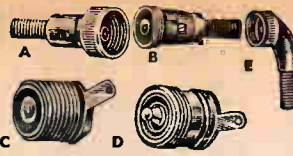
## MIDGET JACKS

6. Midget jacks of compact size, high quality, and low price. Fine grade bakelite insulation and tempered nickel silver springs. Mounts in  $\frac{3}{8}$ " dia. hole in panels up to  $\frac{1}{8}$ " thick. With mtg. nut and wshr. 13N6548—Closed cir. jack..... **19c**  
 13N6549—Open cir. jack..... **16c**  
 New imp. Short jack. Fits standard 3-circuit mike plug. 13N6550—Each..... **24c**

## MALLORY PLUGS, JACKS



No. 75. Two way. Bakelite shell. Tie cord anchor included. 13N6295—Each..... **38c**  
 No. 75N. As above, but nickel shell. With tie cord anchor. 13N6293—Each..... **59c**  
 No. 75A. As above, with built in cable clamp included. 13N6346—Each..... **97c**  
 No. 100. 2-Way Extension jack. Is equipped with fibre shell. 13N6348—Each..... **76c**  
 No. 100N. As above, but comes with nickel shell. 13N6342—Each..... **97c**  
 No. 100A. As above, but with nickel shell and cable clamp. 13N6349—Each..... **1.35**  
**Microphone Plugs**  
 No. 76. 3-way mike plug. Bakelite shell. 13N6296—Each..... **59c**  
 No. 76A. Same, but with nickel shell. 13N6347—Each..... **1.15**



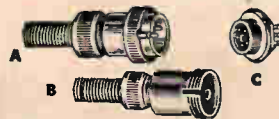
## SINGLE CONTACT MIKE CONNECTORS

Pressure type compact connectors for use with single conductor microphone cable—utilize shell for second contact. Contact is made when center soldered connections are pressed together by tightening coupling ring. Plated metal shells. Insulation is special tissue base laminated bakelite. Cable shield easily grounded through shell by soldering to cable protector. Accommodate cables up to  $\frac{1}{4}$ " in diameter.

A. Type MC1F—Female Cord Connector. 13N13359—Each..... **32c**  
 B. Type MC1M—Male Cord Connector. 13N13360—Each..... **26c**  
 C. Type PC1M—Male chassis connector. Same as MC1M except for chassis mounting. 13N13361—Each..... **19c**  
 D. Type SP-PC1M—Same as PC1M but with center contact

floats heavy coil spring. 13N13385—Each..... **26c**  
 E. Type MC1F-A—Right angle female cord connector with spring cord protector. Use with PC1M, SP-PC1M, CL-PC1M 13N13277—Each..... **39c**  
 D. Type CL-PC1M—Closed circuit chassis connector. Closes circuit automatically when mike is disconnected. 13N13268—Each..... **26c**

## SHIELDED LOCKING TYPE MICROPHONE CONNECTORS



MC series Polarized shells. For use on  $\frac{5}{8}$ "-27 stands. Locking ring on male, cable clamps on both. Spring cord protector. Interchangeable bakelite elements. Coupled,  $2\frac{3}{4}x\frac{7}{8}$ ".

3-Contact Connectors 13N13489—Male (A) Ea. } **65c**  
 13N13490—Fem. (B) Ea. }  
 Female Chassis (C)  $\frac{1}{8}$ " hole. 13N13396—Each..... **32c**  
 4-Contact Connectors 13N13488—Male (A) Ea. }  
 13N13489—Female (B) Ea. } **71c**  
 Female Chassis (C)  $\frac{1}{8}$ " hole. 13N13397—Each..... **35c**



## PIN CONNECTORS

Metal shells are heavily plated. Bakelite elements. Screw type coupling rings. Shells may be utilized for second conductor. For cable up to  $\frac{1}{4}$ " diameter.

## Single Conductor

13N13286—Male (B) Ea. } **42c**  
 13N13287—Fem. (A) Ea. }  
 Female Chassis connector. Mounts in a single  $\frac{5}{8}$ " hole (C). 13N13288—Each..... **26c**  
 Female chassis connector with riveting plate. Single  $\frac{5}{8}$ " mtg. hole. (D). 13N12574—Each..... **32c**

## Two-Conductor

As above, but for 2-conductor cables and twisted pairs. 13N13289—Fem. (A) Ea. } **52c**  
 13N13290—Male (B) Ea. }  
 Female chassis connector. Mounts in a single  $\frac{5}{8}$ " hole (C). 13N13292—Each..... **29c**  
 Female chassis connector with riveting plate. Single  $\frac{5}{8}$ " hole mounting (D). 13N12575—Each..... **35c**

## ICA SHIELDED 3-WAY MICROPHONE PLUG



Barrel made of nickel plated brass. Fully insulated bushing.

13N13519—Each..... **85c**  
 As above but with bakelite barrel. 13N13521—Each..... **59c**

## POPULAR PHONE PLUGS



For 1 or 2 phone or speaker cords. Molded bakelite shell.  $2\frac{3}{4}$ " long,  $\frac{3}{4}$ " diameter. With screw connections. 13N14974—Black. Ea.... } **27c**  
 13N14971—Red. Ea.... }  
 10 for..... **2.49**

## Metal Shell Type

Same with nickelled brass shell. Dimensions:  $3\frac{3}{8}x\frac{3}{4}$ ". 13N14970—Each..... **49c**  
 10 for..... **4.41**

## "Stubby" Metal Shell

As above but with short metal shell.  $2\frac{1}{4}$ " overall. 13N14959—Each..... **42c**  
 10 for..... **3.75**

## Midget Bakelite Plug

Bakelite shell.  $2\frac{1}{4}$ " x  $\frac{3}{8}$ " dia. Solder lug connections. 13N14960—Black. Ea.... } **27c**  
 13N14963—Red. Ea.... }  
 10 for..... **2.49**

## Midget Metal Shell

Same with metal shell.  $2\frac{1}{4}$ " overall x  $\frac{3}{8}$ " diameter. 13N14958—Each..... **38c**  
 10 for..... **3.40**

## U. S. ARMY AND NAVY SPECIFICATION PLUGS



Meet exacting government requirements. Will fit all standard jacks. PL54—Short 2-way plug 13N14965—Ea..... **50c**  
 PL55—Long 2-way plug. 13N14966—Ea..... **50c**  
 PL68—3-way Mike Plug. 13N14967—Ea..... **1.03**

## Flat Plug

Ultra-compact type for use where space is limited. Molded bkt. body.  $1\frac{1}{4}$ " dia.,  $\frac{1}{4}$ " thick. 13N14964. **39c**

## PHONE PLUG ADAPTER



Makes a standard phone plug out of the MC1F cable connector. No soldering or wiring required. 13N13388—MC1F. Ea.... **29c**

## MICROPHONE SWITCH



Attaches between male and female of any of the above connectors. Push to talk or slide switch for permanent connection. 13N13357—MC1S. Ea.... **65c**



# BINDING POSTS, PHONE TIPS, PLUGS

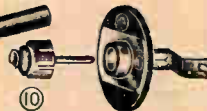


## EBY BINDING POSTS NON-REMOVABLE TOPS

1. Specially designed for use on metal chassis. Post has hole for wire or phone tip. Junior Post. Has 6-32 stud, 1 1/2" long.  
13N13082—Each.....15c
- Ensign Post. Has 6-32 stud, 3/8" long.  
13N13083—Each.....23c
- Commander Post. Has 8-32 stud, 7/8" long.  
13N13084—Each.....29c

## EBY TWIN POST UNITS

- Two binding posts molded into a heavy Bakelite base.  
13N13062.....42c
- As above, but with three posts.  
13N13063.....73c



## TIP JACKS

1. Mounted on 3/32" Bakelite. Contact springs grip cord tips securely. Double jack type.  
13N13037—Each.....9c  
10 for.....81c
- Same as above. Triple jack.  
13N13036—Each.....14c  
10 for.....1.26

## PLAIN TIP JACKS

2. For test equipment. Powerful spring. 1/4" mounting hole.  
13N12918—Each.....6c  
10 for.....54c

## ALL INSULATED TIP JACK

3. Countersunk 1/2" d. head. 3/4" overall. Fits 3/8" hole. Bronze spring.  
13N12934—Red.....9c  
13N12935—Black.....9c  
Either Type, 10 for.....80c

## INSULATED TIP JACKS

4. Have new type springs which provide sure grip contact. Mounts in 3/16" hole. In Red or Black. Specify color.  
13N12879—Each.....9c  
10 for.....80c

## MOLDED BAKELITE INSULATED TIP JACKS

5. Large diameter molded Bakelite heads take all phone tips. Phosphor bronze springs. With insulating washer.  
13N12877—Red.....12c  
13N12878—Black.....12c  
Either Type, 10 for.....1.08

## COMBINATION JACK

6. New type, takes both phone tips and banana plugs. Fully insulated, with insulating washer. In Red or Black. Specify color desired.  
13N12925—Each.....11c  
10 for.....99c



## SPRING CLAMP BINDING POSTS

3. Insulated top. Spring clamp holds wire. Overall length 1".  
13N13046—Each.....7c  
10 for.....63c

## BINDING POST WITH BANANA JACK TOP

4. Hole in top takes banana plug. Hole in stem for wire. Red or Black. Specify color.  
13N12945—Each.....15c  
10 for.....1.35

## INSULATED POSTS

2. Red or Black composition top. Plated ferrule. Specify color.  
13N13163—Each.....11c  
10 for.....99c



## UHF TIP JACK

7. Takes standard phone tips, but contact may be removed and the body used as an UHF through-panel bushing as well. Mounts in 5/8" dia. hole. Retainer ring included.  
13N12767—Each.....18c

## AMPHENOL PHONE TIP JACKS

8. Bakelite body. Takes standard plain or solderless phone tips. Mounts securely by means of snap ring. Requires 3/8" hole. Red or Black—specify color desired.  
Amphenol type 78-IP.  
13N12765—Each.....5c

## HIGH VOLTAGE JACK

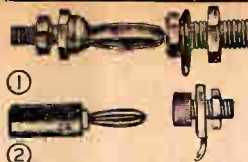
- 13,000 V. Tip Jack. As above but 1/2" diam. For x'mitters, etc. Red or Black. Specify color. Type 78-IPI.  
13N12766—Each.....7c

## ALLIGATOR PHONE TIP JACK

9. Alligator clip fitted with standard phone tip jack. Fits test prods equipped with phone tip ends. Red or Black—specify color.  
13N12880—Each.....25c  
10 for.....2.24

## PHONO TIP PLUG AND JACK

10. Single prong shielded plug used extensively for mike or phono pickup, other connections. Phono jack mounts in rear of panel through 3/8" hole and is 11/16" between centers.  
13N11773—Plug. Each.....5c  
13N11774—Jack. Each.....8c



## PLAIN BANANA JACKS AND PLUGS

1. Plug is 1 1/8" long. Jack is 5/8" long and fits 1/4" hole in panels up to 3/8" thick.  
13N12919—Plug. Each.....7c  
10 for.....60c 100 for.....5.40
- 13N12923—Jack. Each.....4c  
10 for.....35c 100 for.....3.25

## INSULATED BANANA JACKS AND PLUGS

2. Plug has set screw for solderless wire connection. Jack fits 1/4" hole and panels up to 3/8" thick. Red or Black insulation on both. Specify color desired.  
13N12915—Plug. Each.....12c  
10 for.....1.08 100 for.....9.70
- 13N12916—Jack. Each.....9c  
10 for.....81c 100 for.....7.60

## BERYLLIUM BANANA PLUGS

3. Signal Corps approved. Used on all government equipment. Made of Beryllium copper. Rivet shank of plug can be turned over without splitting. Shank 1/4" long. 1/8" diam. Overall size: 13/16".  
13N13183—Each.....9c
- 13N13184—Overall size: 1 1/8". Same but with 6-32 threaded stud 3/8" long.  
Each.....15c



## RIGHT ANGLE TIP PLUGS

1. Streamlined plugs with set screw for solderless connections.  
13N12937—Red or Black.  
Each.....24c
- 13N12984—(2) Red.....26c  
13N12985—(2) Black.....26c

## SOLDERLESS INSULATED PHONE TIP PLUGS

3. Solderless type; fit all standard tip jacks. Used on test leads. In Red or Black.  
13N12973—2" long.....10c  
13N12974—1 1/2" long.....10c  
Either type, 10 for.....90c

## PLAIN SOLDERLESS PHONE TIP PLUGS

4. All metal tip plug for tip jack use. Solderless connection. 1 5/8" long.  
13N12943—10 for 54c  
Each.....6c
- As above but 1 1/4" long  
13N12944—10 for 54c  
Each.....6c

## BAKELITE JACKS AND PLUGS

- Mount in 3/8" hole with retainer ring included. Contacts recessed 1/8". Body may be used as a feed-thru. State choice, Red or Black.
- JACKS**
- 13N12920—for 3/32" plug.  
13N12921—for 5/32" plug.  
13N12922—for 1/8" plug.  
Jacks, each.....5c
- PLUGS**
- 13N12900—for 3/32" jack.  
13N12901—for 5/32" jack.  
13N12903—for 1/8" jack.  
Plugs, each.....3 1/2c



## SPLIT TYPE BANANA PLUG

4. Insulated. Fit standard banana jacks. Set screw in barrel for solderless connection. Positive spring action. Plug 1/2" long; overall 1-7/16". Red or Black; specify color.  
13N12902—Each.....12c  
10 for.....1.07

## ALLIGATOR CLIPS

5. Powerful grip. 2" clip is 1/4" wide, 2 3/4" clip is 5/16" wide. Steel non-rusting finish.
- | No.       | Length | Each | 10 for |
|-----------|--------|------|--------|
| 13N12955* | 2"     | 5c   | 44c    |
| 13N12956  | 2 3/4" | 12c  | 1.08   |

- \*End takes banana plug. Copper with bronze spring. For RF work. Set screw 2" long.  
13N12947—Each.....8c  
10 for.....69c

## INSULATED

## ALLIGATOR CLIPS

6. Plated metal grips with insulated handles that take banana plugs. Handles in Red or Black; specify. Steel non-rusting finish.

No.	Length	Ea.	10 for
13N12911	2 1/4"	8c	78c
13N12909	3 1/4"	15c	1.35
13N12949*	2 1/4"	11c	98c

- \*Copper—with bronze spring.



## STANDARD PHONE TIPS

5. Heavily plated. Takes up to No. 18 wire. 1" long.  
13N14881—10 for.....12c  
100 for.....1.00

## HEAVY DUTY PHONE TIP

6. Nickel plated brass. Used on test leads—prods. 1 1/2" L.  
13N14822—Each.....8c  
10 for.....72c

## PHONO NEEDLE PLUG

7. Insulated sleeve fits banana plug, and makes contact with prod. Tip holds replaceable phono needle. 1 1/4" long. Red or Black.  
13N12917—Each.....12c  
10 for.....1.08

## PHONE TIP AND LUG ADAPTERS FOR PRODS

- B. For use with any banana plug. Fits tip jacks or binding posts. Red or Black.  
13N12913—Phone tip end 10c  
13N12914—Spade lug end 10c  
Either Type, 10 for.....90c



# MALLORY & CENTRALAB SWITCHES

## MALLORY GANG SWITCHES



Contact members are heavily silver plated, and given a smooth, hard finish. Contact shoe, of the self-cleaning type, is of silver alloy. All switches are provided with one permanent stop and one adjustable stop. Bushings  $\frac{3}{8}$ " and extend  $\frac{3}{8}$ ". Pointer type, Bakelite knob is supplied also.

Shorting		Non-Shorting		Tot. No.		
Stock No.	Type	Stock No.	Type	Gangs	Circuits	Points Ea.
9N6248	1211L	9N6264	1311L	1	1 circuit	1 to 11 .91
9N6249	1215L	9N6265	1315L	1	2 circuit	1 to 5 .97
9N6250	1213L	9N6266	1313L	1	3 circuit	1 to 3 1.06
9N6251	1212L	9N6267	1312L	1	4 circuit	1 to 2 1.12
9N6253	1221L	9N6269	1321L	2	2 circuit	1 to 1 1.35
9N6254	1225L	9N6270	1325L	2	4 circuit	1 to 5 1.53
9N6255	1223L	9N6271	1323L	2	6 circuit	1 to 3 1.65
9N6256	1222L	9N6272	1322L	2	8 circuit	1 to 2 1.73
9N6258	1231L	9N6274	1331L	3	3 circuit	1 to 1 1.82
9N6259	1235L	9N6275	1335L	3	6 circuit	1 to 5 1.94
9N6261	1241L	9N6277	1341L	4	4 circuit	1 to 1 2.32
9N6262	1245L	9N6278	1345L	4	8 circuit	1 to 5 2.70
9N6281	1261L	9N6283	1361L	6	6 circuit	1 to 1 3.41
9N6286	1266L	9N6287	1366L	6	12 circuit	1 to 6 4.35

## MALLORY CERAMIC SELECTOR SWITCHES



For radio receivers and low power transmitter circuits. "Snap" indexing assembly with adjustable stop. Heavy silver plated contacts. With knob.

No.	Type	Gangs	Cir.	Each
9N6625	172C	1	1	1.32
9N6626	173C	1	2	1.32
9N6627	174C	1	3	1.32
9N6628	176C	2	1	2.06
9N6629	177C	2	2	2.06
9N6630	178C	2	3	2.06
9N6631	180C	3	1	2.94
9N6632	181C	3	2	2.94

## MALLORY CERAMIC SWITCHES



Low loss ceramic insulation, wide contact spacing, improved heavy silver plated contacts for transmitters with power up to 100 watts. 4 contacts per circ. With knob.

No.	Type	Gangs	Cir.	Each
9N6642	161C	1	1	1.32
9N6643	162C	2	2	2.06
9N6644	163C	3	3	2.94
9N6645	164C	4	4	3.53
9N6646	165C	5	5	4.41

9N6647—Special dial plate for above Numbered from 1 to 4. Each.....12c

## "3100" SERIES SINGLE-GANG SELECTOR SWITCHES



Tap and circuit selector switches with same features as gang switches above. For use in many types of test circuits. 2" notched shafts,  $\frac{1}{4}$ " dia. With black bar knob and mounting nut.  $\frac{3}{8}$ " bushings. \* indicates adj. stop.

Shorting Stock No.	Type	Non-Shorting Stock No.	Type	No. of Circuits	Contacts per Circuit	Base Diam.	Each
9N6878	3115J	9N6888	3215J	One	5	$1\frac{1}{4}$ "	.68
9N6879	3112J	9N6889	3212J	One	12	$1\frac{1}{4}$ "	.68
9N6890	3122J	9N6890	3222J	Two	2	$1\frac{1}{4}$ "	.68
9N6891	3123J	9N6891	3223J	Two	3	$1\frac{1}{4}$ "	.68
9N6880	3126J	9N6892	3226J	Two	6	$1\frac{1}{4}$ "	.68
9N6881	3134J	9N6893	3234J	Three	4	$1\frac{1}{4}$ "	.71
9N6882	3142J	9N6894	3242J	Four	2	$1\frac{1}{4}$ "	.71
9N6883	3143J	9N6895	3243J	Four	3	$1\frac{1}{4}$ "	.71
9N6884*	31117J	9N6896*	32117J	One	17	$1\frac{1}{4}$ "	1.06
9N6885*	3129J	9N6897*	3229J	Two	9	$1\frac{1}{4}$ "	1.06
9N6886*	3136J	9N6898*	3236J	Three	6	$1\frac{1}{4}$ "	1.15
9N6887*	3163J	9N6899*	3263J	Six	3	$1\frac{1}{4}$ "	1.15

## SPECIAL SWITCHES



No. 1400L—12 positions; opens one line at a time while maintaining circuit through others.  $1\frac{3}{4} \times 2\frac{1}{2}$ " wide,  $\frac{3}{8}$ " bushing 2" notched shaft. Complete with knob & dial plate. 9N6370.....3.47

## 24 POINT TAP SWITCH



Suitable for use in test circuits, tube checkers, analyzers. Special single-circuit 24-point non-shorting switch.  $\frac{3}{8}$ " bushing, 2" grooved shaft. Complete with dial plate and bar-type knob. 9N6371.....2.06

## MALLORY PUSH-BUTTON SWITCHES



Non-locking types with black bakelite knob. For mounting in  $\frac{7}{8}$ " hole, panels up to  $\frac{1}{4}$ ".

No.	Type	Contacts	Cost
9N6460	2001	SPST no	.76
9N6461	2002	SPST no	.76
9N6462	2003	SPDT	.82
9N6457	2004	DPST no	.94
9N6463	2006	DPDT	1.15

## MALLORY JUNIOR JACK SWITCHES



With black knob, off-on plate. Mounts in  $\frac{1}{4}$ " hole, panels up to  $\frac{1}{4}$ " thick.  $1\frac{1}{4}$ " deep.

### Two Position Switches

No.	Part	Type	Each
9N6470	720	S.P.S.T.	.65
9N6471	730	S.P.D.T.	.79
9N6472	740	D.P.S.T.	.88
9N6473	745	5-Spring	1.03
9N6474	760	D.P.D.T.	1.15
9N6475	733	3-P.S.T.	1.15
9N6469	744	4-P.S.T.	1.50

### Three Position Switches

No.	Part	Type	Each
9N6440	732	S.P.D.T.	.67
9N6441	762	D.P.D.T.	.93
9N6442	763	3-P.D.T.	1.22
9N6443	764	4-P.D.T.	1.51

## TWO-CIRCUIT,

SIX-POSITION HAMS SWITCH  
Connects and automatically shorts all unused terminals.  $\frac{1}{2}$ " spacing between sections.  $\frac{3}{8}$ " diam.  $\frac{3}{8}$ " bushing. 2" grooved shaft. Adj. stop. 9N6375—Each.....1.91

## CENTRALAB ALL-PURPOSE SWITCHES

### MOMENTARY PUSH TYPE



For light duty applications. 1 amp. at 110 v. a.c. Silvered contacts. Insulated  $\frac{3}{8}$ " bushing,  $\frac{3}{8}$ " long. Button extends  $\frac{1}{2}$ " from end of bushing. Available with contacts normally closed or open. 9N12867—Normally open. 29c 9N12862—Norm. closed....29c

### ROCK SWITCHES

Rotary Action Shorting type: have  $\frac{3}{4}$ " dia. bushing with  $\frac{1}{4}$ " insulated steel shaft,  $2\frac{1}{4}$ " long. No knobs or plates.

Stock No.	Description	Each
9N12768*	S.P. 2 pos.	44c
9N12769*	S.P. 3 pos.	44c
9N12770*	D.P. 2 pos.	44c
9N12820*	D.P. 3 pos.	59c
9N12771*	S.P. 2 pos.	44c
9N12772*	D.P. 2 pos.	59c
9N12807	S.P. 4 pos.	73c
Line Sw.	S.P. S.T.	73c

\*Pos. Action. †Spring Return.

## ETCHED PLATES

Hard aluminum with numbers etched in white. Fit  $\frac{3}{8}$ " bushings. Plates with on-off position for use with switches. 30° spacing for all switch types 1200L, 1300L and  $1\frac{1}{4}$ " base 3100J and 3200J. 20° spacing for all type 3100J, 3200J switches with  $1\frac{1}{4}$ " base.



Marking	30° Spacing	20° Spacing
Cat. No.	Cat. No.	Cat. No.
1 to 2	9N6224	
1 to 3	9N6225	9N6303
1 to 4	9N6226	9N6304
1 to 5	9N6227	9N6305
1 to 6	9N6228	9N6306
1 to 7	9N6229	9N6307
1 to 8	9N6230	9N6308
1 to 9	9N6231	9N6309
1 to 10	9N6232	9N6310
1 to 11	9N6233	9N6311
1 to 12	9N6234	9N6312
1 to 15		9N6243
Volume	9N6244	
Off-1 to 3	9N6235	9N6313
Off-1 to 4	9N6236	9N6314
Off-1 to 5	9N6237	9N6315
Off-1 to 6	9N6238	9N6316
Off-1 to 7	9N6239	9N6317
Off-1 to 8	9N6240	9N6318
Off-1 to 9	9N6241	9N6319
Off-1 to 10	9N6242	9N6320

Any above, each.....12c  
9N6223—Marked "0-100"  
Each.....15c

## MALLORY HAMS SWITCH



Allows use of a single meter to measure currents or voltages in five transmitter circuits. High insulation factor and low loss construction. 1000 volts RMS AC or 1500 V. DC. Two gang with  $2\frac{1}{4}$ " spacing between sections. 2" grooved shaft.  $\frac{3}{8}$ " bushing. 9N6372.....1.62  
9N6374—Dial Plate, 1-5, 60° markings .....12c

## "POSITIVE" AND "SPRING RETURN"



Lever Action. With knob. Plates available for mounting singly or in groups up to five.

Shorting Type	Non-Shorting Type
No. P. P. Action	No. No.
9N12825 2 3 Positive	9N12799
9N12826 2 3 Spring	9N12800
9N12801 4 2 Spring	9N12802
9N12804 4 2 Positive	9N12803
9N12805 2 3 Pos. Spr.	9N12806

Any Type Above.....73c

## MOUNTING PLATES

Black crackle finished steel.

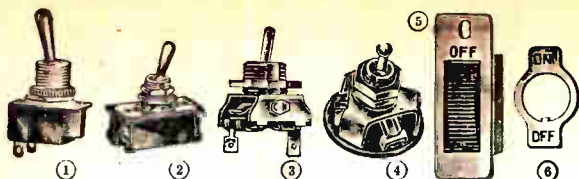
No.	Gangs	Dimen.	Each
9N12794	1	$2\frac{1}{2} \times 3\frac{1}{4}$ "	21c
9N12795	2	$1\frac{1}{2} \times 3\frac{1}{4}$ "	24c
9N12796	3	$2\frac{1}{4} \times 1\frac{1}{2}$ "	29c
9N12797	4	$3 \times 2\frac{1}{4}$ "	35c
9N12798	5	$3\frac{3}{4} \times 3$ "	44c

## UNIVERSAL FLAT SWITCHES

Use many ways, from single pole single throw to 4 pole double throw. Bake-lite insulation, non-shorting teeth. Requires  $\frac{5}{8}$ " depth for mounting. With  $2\frac{1}{4}$ " shaft and bar knob. 9N12764.....59c  
9N12773 With spring return 73c



# SWITCHES FOR EVERY PURPOSE

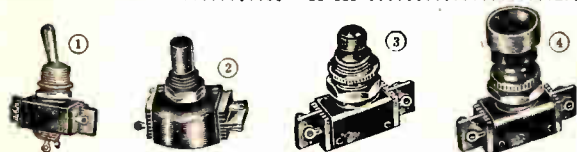


## CUTLER-HAMMER NEW DESIGN SWITCHES

Approved type with nickel-plated metal parts. Fast action—excellent for appliances, radio receivers, etc. Underwriters Appr.

Stock No.	Fig.	Poles	Stem Length	Power		Each	Lots/10 Each
				Amp.	Volt		
9N12836	1	SPST	1 1/2"	3	250	.29	.26
9N12834	1	SPDT	1 1/2"	3	125	.35	.31
9N12833	1	DPDT	1 1/2"	3	250	.59	.53
9N12817	1	DPST	1 1/2"	3	250	.55	.50
9N12813	2	SPST	1 1/2"	6	250	.69	.62
9N12814	2	DPST	1 1/2"	5	250	.69	.62
9N12815	2	SPST	1 1/2"	10	250	1.10	.99
9N12816	2	DPST	1 1/2"	10	250	1.10	.99
9N12837	3	SPST	1 1/2"	3	125*	.20	.18
9N12832	4	SPDT†	1 1/2"			.26	.23

- \*Midget Rated AC †With Dead Center Position
4. SP3T with dead center position. Stem length 1 1/2".  
 9N12831—Each ..... 1.71 Lots/2-9 ..... 1.20  
 Lots/10-20 ..... 1.03 Lots/21-40 ..... .94c
5. SPST. Rated 6 amp at 125 volts. Stem length 1 1/2".  
 9N12841—Each ..... 78c Lots/2-9 ..... 55c  
 Lots/10-20 ..... 47c Lots/21-40 ..... 43c
6. On-Off switch plate for toggle switches. With locating project'n.  
 9N12818—Each ..... .3c 10 for ..... .27c



## H & H SWITCHES

1. All have nickel metal parts, black finish.

Stock No.	Stem Length	Poles	Power		Each	Lots 10 Ea.
			Amp.	Volts		
9N12754	1 1/2"	SPST	6	125	.29	.26
9N12755	1 1/2"	SPDT	3	125	.35	.31
9N12756	1 1/2"	DPST	5	125	.55	.50
9N12757	1 1/2"	DPDT	3	125	.59	.53

## H & H ROTARY PANEL SWITCHES

2. Rated 3 amps., 125 volts. Approved type. With locknuts. Shaft extends 1". Bushing 3/8" in diameter. With lug terminals.
- | No.     | Type     | Each 10 For | No.     | Type      | Each 10 For |
|---------|----------|-------------|---------|-----------|-------------|
| 9N12779 | SPST.†   | .28 2.52    | 9N12782 | D.P.S.T.* | .63 5.67    |
| 9N12693 | SP.S.T.  | .35 3.15    | 9N12783 | D.P.D.T.  | .56 5.04    |
| 9N12780 | SP.S.T.† | .35 3.15    | 9N12784 | D.P.D.T.* | .64 5.76    |
| 9N12781 | D.P.S.T. | .52 4.68    |         |           |             |
- \*Bushing extends 1". Others, 3/8". †3 amp., 250 volt.

## 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" dia., 5/8" long.

### 3. METAL PLUNGER

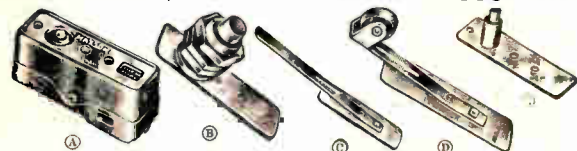
Used on Supreme instruments and other popular makes.  
 9N12774—Your cost ..... 46c  
 10 For ..... 4.14

### 3. BAKELITE TIP

9N12777—Red. } Each ..... 61c 10 For 5.49  
 9N12778—Black. }

### 4. BAKELITE BUTTON

9N12775—Red. } Each ..... 55c 10 For 4.95  
 9N12776—Black. }



## UNIMAX NEW PRECISION SWITCHES

Actuators attached to removable, interchangeable "adaptaplates". Operating pressure, approx. 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) ..... .90  
 9N12654—MXL-1 Leaf Spring Type (C) ..... 1.00  
 9N12655—MXO-1 Top Reset, Plunger Type (B) ..... 1.10  
 9N12656—MXU-1 Bottom Reset, Plunger Type (B) ..... 1.10  
 9N12657—MXT-1 Hinged Leaf Spring Type ..... 1.25  
 9N12658—MXW-1 Leaf Spring Roller Type (D) ..... 1.25  
 9N12659—MXQ-1 Plunger, Small Spring Type (E) ..... 1.20  
 9N12660—MAX-1 Hinged Arm, Roller Type ..... 1.50  
 9N12661—MXY-1 Reverse-Acting, Hinged Type ..... 1.25  
 9N12662—MXF-1 Reverse-Acting, Hinged Roller Type ..... 1.50  
 9N12663—MXJ-1 Plunger Type, For Panel ..... 2.00



## MIDGET KNIFE SWITCHES

7. Panel mounting. Have black bakelite bases, plated metal parts. Single pole types 1 1/4" long, 1/2" wide; double pole 1 1/4" long, 1" wide. With mtg. nuts.

No.	Type	Each
9N16842	S.P.S.T.	.19
9N16843	S.P.D.T.	.32
9N16845	D.P.S.T.	.38
9N16844	D.P.D.T.	.40

## CLAROSTAT SWITCHES

Compact, positive contact Underwriters' Approved Rotary Switches. Bakelite molded construction. Rated 1 amp., 250 volts; 3 amps., 125 volts. 1 1/8" dia., 1 1/8" body depth; bushings are 3/8" dia., 1 1/2" shaft.

No.	Description	Each
9N12845	S.P.—S.T.	.35
9N12846	D.P.—S.T.	.44
9N12847	S.P.—D.T.	.44
9N12848	4-Wire, S.T.	.44

## BAKELITE KNIFE SWITCHES

8. Heavily plated metal parts, bakelite base. Single pole types 1 1/2" long; double pole 2 1/2".

No.	Type	Each
9N16830	S.P.S.T.	.50
9N16831	S.P.D.T.	.59
9N16832	D.P.S.T.	.68
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

## ROTARY SWITCH PLATE

"Off-On" switch plate. Etched aluminum and black. Size: 1" x 1 1/4". Clean cut lettering.  
 9N9857—10 for 85c. Each... 9c  
 "Off-On" Switch Plate. Etched aluminum, black. 1 1/8" x 1 1/8".

9N9859—10 for 85c. Each... 9c



## FEDERAL ANTI-CAPACITY SWITCHES

5. Springs are phosphor bronze silverplated, actuated by a cam roller.

No.	Type	Each	No.	Type	Each
9N12852	D.P.S.T.	1.90	9N12850	4-P.D.T.	2.25
9N12851	D.P.D.T.	1.90			

6. Canopy Switch. Rotary type, composition top. Vary shallow. Wire leads. Rated 3 amp. at 125 volts.  
 9N13342—Each ..... 17c

7. Slide Switches. Compact slide silver plated switches in cadmium steel housings. All rates at 125 V. AC-DC. 1 1/8" mtg. ctrs.

No.	Type	Amp.	Term.	Ea.	No.	Type	Amp.	Term.	Ea.
9N12842	SPST	.75	2	.16	9N12844	DPST	.50	4	.22
9N12843	SPDT	.75	3	.19	9N12840	DPDT	.50	6	.28



## UNIMAX DESIGN KIT

1. For the designer and model maker. Design kit enables quick selection of precision switch types necessary to suit a particular requirement. Fills many needs in the drafting room, model shop and maintenance department by making available diversified switch types for quick determination of size, shape, mounting and method of actuating, best suited for a particular application. Kit complete with two MX-1 SPDT base switches, one MXT-1 base switch with direct acting hinge arm. Adaptaplates, one style "T" spring plunger with threaded bushing for one-hole panel mounting, one style "W" leaf spring with steel roller, two style "L" standard leaf springs, one style "T" direct acting with leaf, one style "T" direct acting with roller, roller assembly to fit styles "L" and "T" adaptaplates. Screws and rivets for attaching adaptaplates also included.  
 9N12758—Each ..... 3.00

## STANDARD MU-SWITCH

2. Light pressure, quick action precision units. Require only 4 oz. pressure and .001" of movement to operate. Underwriters approved. Rated 15 amps. at 125 volts AC; 1/2 H.P. inductive loads at 125-460 V. AC. Screw terminals with lugs. 1 1/8" x 1 1/8" x 1 1/8".

No.	Type	Normal	Each
9N12725	SPST	Closed	.90
9N12726	SPST	Open	.90
9N12727	SPDT		1.08

## THERMOSTAT-TYPE SWITCH

3. MU switch designed for automatic control of temperature in electrically heated brooders and incubators, or wherever an automatic electric heat control is desired. Maximum efficiency between 80° and 120° F. Has double ether-filled water and adjusting screw. Rated 15 amps. 125 V.; 5 amps. 250 V. AC only. Non-inductive loads.

9N12753 ..... 1.35



# DIALS AND VARIABLE CONDENSERS

## MICA TRIMMER CONDENSER

Base of low-loss ceramic with India Ruby mica. Moisture resistant. Lugs bend easily.

No.	Plates	Range	Each
11N9537	1½	2-30 MMF	12c
11N9536	2	4-80 MMF	12c
11N9535	3	9-180 MMF	16c
11N9534	4	25-280 MMF	18c
11N9533	5	45-380 MMF	20c
11N9532	6	70-480 MMF	22c
11N9531	7	100-580 MMF	24c

## COMPACT MIDGET CONDENSERS

Ceramic insulation. Sturdy lug terminals, single hole mtg. feature, etc. ¼" plated shaft.

11N9728	—3.5 to 25 mmfd.	4 plates	.....76c
11N9731	—6 to 80 mmfd.	11 plates	.....88c
11N9727	—6 to 100 mmfd.	14 plates	.....94c
11N9714	—7 to 140 mmfd.	19 plates	.....1.03

## MIDGET SINGLE GANG CONDENSERS

Firmly staked rotor and stator plates. Low-loss bakelite insulation. Ball bearing. Counter clockwise motion. ¼" shaft. 1¾x1¾x1-3/16" deep.

11N10189*	15 mmfd	11N10194	100 mmfd	} 59c
11N10190*	25 mmfd	11N10195	150 mmfd	
11N10191*	35 mmfd	11N10196	250 mmfd	
11N10192*	50 mmfd	11N10198	410 mmfd	
11N10193*	75 mmfd	11N10199	450 mmfd	

\*Double spaced.

## DEFIANCE GANG CONDENSERS FOR FM-AM

Each section contains a trimmer, aluminum plates, ball bearings, low-loss insulation plus ¼" shaft featured 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—Shpg. 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.

11N9793—Shpg. wt. 1 lb. ....1.50

## FM GANG CONDENSERS SIMILAR TO ABOVE

3-Section: Each section 14.8-1.3 mmf. 11N9794—Shpg. wt. 1 lb. ....1.25

2-Section: Each section 14.8-1.3 mmf. 11N9795—Shpg. wt. 1 lb. ....89c

## DEFIANCE GANG CONDENSERS

With aluminum plates, ball bearing rotors and low-loss insulation. 2 and 3 gang units supplied with trimmers on bottom. Shafts ¼" dia., 1¼" long. 3 mtg. holes tapped for 6/32 screws. All 1½" high, 1-13/16" wide. All 365 mmfd per section except cut sections on 456 KC Super types.

No.	T.R.F.	Each	Gangs	Length	Rotation	456 KC Super	No.	Each
11N9780	.59	1	1	1¼"	counter-clock			
11N9781	.89	2	2	2¾"	counter-clock	11N9798	.89	
11N9782	1.39	3	3	3¾"	counter-clock	11N9799	1.39	
11N9783	.59	1	1	1¼"	clockwise			
11N9784	.89	2	2	2¾"	clockwise	11N9796	.89	
11N9785	1.39	3	3	3¾"	clockwise	11N9797	1.39	

## 420-160 MMFD DEFIANCE GANG CONDENSERS

Two gang, 420, and 160 mmfd. condensers for use with 456 KC IF superhets. Counterclockwise rotation, with trimmers built onto frame. Total length 2-3/16". Shpg. wt. 1 lb.

11N9775—Two Gang, 420 and 160 mmfd. ....89c

11N9776—Three Gang, Two 420 and one 160 mmfd. ....1.39

## BRASS SHAFT COUPLERS AND BUSHINGS

Fig.	Size	Fig.	Insul.	Brass	Each
1	1/4x1/4"	1	11N15014	11N15000	} Each 10 for 11c 99c
2	3/8x3/8"	1	11N15005	11N15001	
3	1/4x3/8"	1	11N15008	11N15002	
4	1/4x1/4"	2	11N15017	11N15004	
	3/8x1/4"	2	11N15018	11N15005	
	1/4x3/8"	2	11N15009	11N15003	

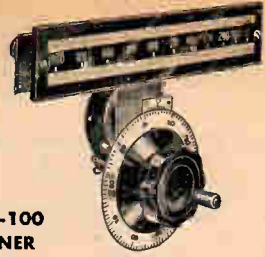
Split Bushing: (3) Increase shaft dia. ¼-3/8". 11N9730—7/16" long. Each...6c 10 for...54c

## BRASS & FIBRE SHAFTINGS

3. For extensions, ¼" dia.	
11N15010—6" Brass.	
11N15011—6" Fibre.	
Each.....	12c
11N15012—12" Brass.	
11N15013—12" Fibre.	
Each.....	24c

## PANEL BEARING ASSEMBLY

4. Use with rigid or flexible coupling when mounting. For up to 5/16" panels.	
11N9563—3" long, ¼" Shaft	20c
11N9562—6" long, ¼" Shaft	26c
11N9564—Bearing only	.....6c



## CROWNNAME P-100 PRECISION TUNER

Controls any instrument with operative rotation of appr. 3600°, including Mallory Inductuner. Planetary type driving mechanism with gear and cord drive to pointer. Ratio approx. 5 to 1. Hub ¾" with ¼" reducing bushing. Black slide rule scale 2x9¾" plus 4" circular dial which indexes to one-thousandth of instrument's total range. Slide rule scale has 0 to 1000 calibrations plus 2 blank channels for user to add own calibrations.

11N9804—Precision Tuner.....11.76

## CROFLEX TUNERS AND CALIBRATIONS

Tuners are flexible—may be adapted to any chassis. Condensers clockwise or counterclockwise—may be located in various positions relative to tuner. Choice of 5 different knob locations. All with horizontal double-channel calibrations, broadcast band 55 to 170 and short-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 ¾" dia. with ¼" adaptors.



### Fully Adaptable—Choose for Size Only

Model	Escutcheon Overall	Panel Cutout	Pointer Travel	Stock No.	Cost
231	2¼x4¾"	1½x4¾"	3-15/16"	11N9818	2.79
232	2-9/16x6-1/16"	1-13/16x5¾"	4-11/16"	11N9819	2.94
233	3-5/32x65/8"	2¼x6"	5½"	11N9820	3.15
234	3-1/16x8-7/16"	2-3/16x7-9/16"	6¾"	11N9821	3.53
236	4x11-1/16"	3-3/16x9-11/16"	9"	11N9800	4.56

Stock Calibrations: The glass dial scales may be removed and replacements put in easily.

### AM Broadcast & Short-wave, double channel

For Model	Horizontal	Vertical	Horizontal	Vertical
231	↑	11N9822	11N9826	11N9830
232	↑	11N9823	11N9827	11N9831
233	↑	11N9824	11N9828	11N9832
234	↑	11N9825	11N9829	11N9833

### FM Broadcast Only

Model	11N9834	11N9838	11N9842	11N9846
231				
232	11N9835	11N9839	11N9843	11N9847
233	11N9836	11N9840	11N9844	11N9848
234	11N9837	11N9841	11N9845	11N9849

† All Horizontals supplied with respective dials.

Stock calibration as above. Each.....44c

### Crownname Horizontal Scales for Model 236 Dial

11N9801—Dial Scale, AM/FM Broadcast.....	} Each 59c
11N9802—Dial Scale, AM Broadcast.....	
11N9803—Dial Scale, FM Broadcast.....	



## PERMEABILITY TUNERS AND DIALS

Complete assembly, includes dial, coils, knob shaft, cable, slug carriage, two High O slugs, and clear plastic dial cover. Tunes RF and Oscillator coils. Superheterodyne circuit components pre-tracked at factory. Use as the basis for compact receivers, no tuning gang capacitor needed. Gold, buff and brown finished dial scale. Covers 540 to 1600 KC.

11N10450—With rectangular dial.....2.85

11N10451—With slide rule dial and window.....4.05

Regenerative Tuner: Replaces single gang variable condenser.

11N10452—Tuner: Range 540 to 1600 KC. With coil.....1.44

FM Dia-Tuner Head: Build your own FM Tuner for your own set.

11N10453—Tuner Head: Range 88 to 108 MC.....4.17

11N10454—Antenna Coupler for Tuner Head.....1.05

11N10455—V.H.F. Choke, 4.5 Microhenry for Tuner Head.... .51



## FULL-VIEW NEON PILOT LIGHT



Plastic head, built-in resistor for 110 volts. Uses NE51 neon bulb at left. Head unscrews to replace bulb from front panel. 1-7/32" long, extends 7/16" in front of panel. With mtg. nut and washer, threaded 11/16-27.

10N14181—Red Hd. 10N14182—Amber Hd. 10N14183—Opal Hd.  
Any color above, Each..... **88c**

## 1" ENCLOSED PILOT LIGHT

Single unit socket assembly unaffected by heat. Porcelain and brass. For standard S6 lamp, removable from front of panel. Single 1" mtg. Faceted jewels. U.L. listed.



10N14140—Red Jewel. 10N14141—Green Jewel. Either type **94c**

## MINIATURE PANEL LIGHT



For panel mtg. S.C. Min. Bay. Base. M's. in 3/8" hole. With 12" lead, nut and washer.

10N6436—Each..... **38c**

## RELIANCE POLISHED CHROME BULL'S-EYES

Takes candelabra base bulbs type S-6. For panels up to 1/2" thick, 1" diameter glass jewel with set of 4 color discs—red, green, amber and white. Jewel bezel.



10N14174—Each.....  
10N14175—As above, with Red or Green faceted 1" jewel } **76c**  
10N14176—Same as above, but with Miniature Base..... }

## HIGH QUALITY JEWELLED PILOT BRACKETS



For amplifiers, transmitters, etc. All have faceted jewels, highly polished nickel-plated steel brackets. Standard and jewelled brackets have 1/2" jewel requiring a 7/16" mounting hole. Jumbo brackets have a 3/4" jewel, requiring a 11/16" hole. Available with Candelabra 110V. Miniature Bayonet and Screw base sockets.

Base Type	Green	Red	Amber
Standard (Min. Screw Size) { Min. Bay. Brackets { Faceted Jewels Only { Asbly with { 3/4" Jewel { Candelabra	10N6433 19c	10N6432 19c	10N6434 19c
	10N6456 19c	10N6454 19c	10N6458 19c
	10N6427 21c	10N6426 21c	10N6428 21c
	10N6430 12c	10N6429 12c	10N6431 12c
	10N6330 35c	10N6331 35c	10N6332 35c
	10N6333 35c	10N6334 35c	10N6335 35c

## RUBBER DIAL LIGHT INSTALLER

For miniature and candelabra in hard-to-reach places.



10N14137—Each..... **24c**

## PORCELAIN RECEPTACLES FOR NEON GLOW LAMPS



Mounting hole spacing all types is 1 1/8" except 10N13327, which is 2". 10N13387 requires 11/16" socket hole in addition to mtg. hole.

10N13331—Candelabra (B) } ea. **9c**  
10N13330—Miniature (B)... }  
10N13327—Edison (B) ..... **13c**  
10N13387—Candelabra (A) ..... **33c**



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

(A) Base Mtg. Type: Bakelite base, screw terminals. 1-7/16x1-5/16".

10N13332—Base..... **48c**

(B) Flush Mtg.: requires 11/16" hole plus mtg. holes 1/4" apart.

10N13389—Flush..... **29c**



## CANDELABRA BASE



Genuine GE Mazda 110-120 V. pilot light. Type S-6.

10N12257—6 Watts. Each... **16c**

Type C-7. As above, but cone-shape 7 watts. White Frosted, 10N12280; Clear, 10N12275.

Either Type, each..... **11c**

## TUBULAR CANDELABRA BASE



110-120 Volt Pilot Light. A brand new 4-watt lamp that is ideal for use behind small panel openings, dials, etc. Looks just like a radio pilot lamp. Size: 1/2" diam, 1-9/16" long. 10N12272—10 for 3.56. **39c**

## VICTOR FROSTED PILOT BULB

Intermediate base. 110/120 volts. For Colonial, Victor, other receivers.

10N12253—Carton of 10, 1.71. Ea. **19c**

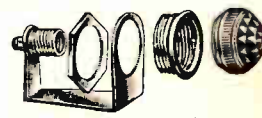
## PILOT LIGHT SOCKETS, MINIATURE, CANDELABRA, BAYONET BASE



Min. Screw	Min. Bay.	Cand. Base
A 10N6510	10N6488	10N6539
B 10N6511	10N6489	10N6557
C 10N6512	10N6490	10N6540
D 10N6513	10N6514	10N6564

Each... **5c**      Each... **7c**      Each... **10c**  
10 for... **.48**      10 for... **.64**      10 for... **.90**  
100 for... **4.32**      100 for... **5.76**      100 for... **8.10**

## FRONT REMOVABLE JEWEL BRACKETS



Mounts in 11/16" hole. 1/2" jewel removable; bulb can be replaced from front.

Miniatur. screw base. Fit tubular bulbs only. 10N6416—Red      10N6417—Green  
10N6418—Amber      10N6425—Opal  
Each..... **29c**

Same, but Miniature Bayonet Base. 10N6408—Red      10N6409—Green  
10N6410—Amber      10N6411—Opal  
Any Type Above, Each..... **29c**

## GIANT 1" JEWEL BRACKETS

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

Color	Candelabra Base	Miniature Base	Bayonet Base
Red	10N6403	10N6404	10N6405
Opal	10N6321	10N6324	10N6327
Green	10N6322	10N6325	10N6328
Amber	10N6323	10N6326	10N6329

Each..... **59c**

# PILOT LAMPS AND SOCKETS

## 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 except 10N12263 which is orange. Prices include Federal Tax.

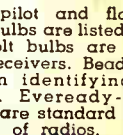
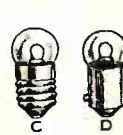
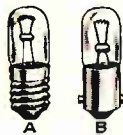


Stock No.	Watts	NE No.	Bulb	Base	Start AC	Volts DC	Each	10 For
10N12266	1	NE30	G10	A	60	85	40c	3.60
10N12267	2	NE34	S14	A	60	85	50c	4.50
10N12263	2	NE34	S14	A	60	85	50c	4.50
10N12276	3	NE40	S14	A	60	85	60c	5.40
10N12264	3/4	NE45	T4 1/2	B	65	90	40c	3.60
10N12215*	1/25	NE51	T3 3/4	C	65	90	10c	.90
10N12216*	1/25	NE2	T2	D	65	90	8c	.72
10N12268	3/4	NE48	T4 1/2	E	65	90	35c	3.15
10N12269*	1/2	NE29	G10	E	105	..	45c	4.05
10N12270*	1	NE32	G10	E	60	85	45c	4.05
10N12271*	2	NE36	S14	F	60	85	55c	4.95
10N12209*	3/4	NE7	T4 1/2	D	..	70	31c	2.79

\*Resistorless type.

Bases: 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 EVEREADY-MAZDA PILOT LIGHT BULBS



Both pilot and flashlight type bulbs are listed below. 6-8 volt bulbs are for 6.3 volt receivers. Bead colors aid in identifying bulb types. Eveready-Mazda bulbs are standard in most makes of radios.

Prices Below Include Federal Excise Tax

Stock No.	Type	Bead Color	Volts	Amps.	Ea.	10 For	100 For
10N12274	48	Pink	2.0	.06	15c	99c	8.91
10N12250	41	White	2.5	.50	9c	60c	5.40
10N12254	40	Brown	6-8	.15	9c	60c	5.40
10N12252	46	Blue	6-8	.25	9c	60c	5.40

Tubular Bulb, Miniature Bayonet Base (B)

10N12260	43	White	2.5	.50	9c	60c	5.40
10N12259	49	Pink	2.0	.06	15c	99c	8.91
10N12249	44	Blue	6-8	.25	9c	60c	5.40
10N12284	47	Brown	6-8	.15	9c	60c	5.40

10N12273 Round Bulb, Miniature Screw Base (C)  
50 White 6-8 .20 10c 66c 5.94

Round Bulb, Miniature Bayonet Base (D)

10N12261	51	White	6-8	.20	8c	49c	4.41
10N12285	55	White	6-8	.40	8c	49c	4.41

## Flashlight Bulbs

G-3/2 (C) is small round. G-4 1/2 is lge. round. TL-3 (E) is lens bulb. P-3 1/2 (not illustrated) is pre-focused miniature flange type bulb.

Stock No.	Type	Bead Color	Volts	Amps.	Ea.	10 For	100 For
10N12200	13(G-3 1/2)	Green	3.8	.30	9c	60c	5.40
10N12201	14(G-3 1/2)	Blue	2.5	.30	9c	60c	5.40
10N12202	605(G-4 1/2)	Brown	6.0	.50	10c	66c	5.94
10N12203	222(TL-3)	White	2.2	.25	9c	60c	5.40
10N12204	122(TL-3)	Pink	1.1	.22	9c	60c	5.40
10N12205	233(G-3 1/2)	Purple	2.3	.27	9c	60c	5.40
10N12206	PR2(P-3 1/2)	Blue	2.4	.50	13c	86c	7.74
10N12207	PR3(P-3 1/2)	Green	3.6	.50	13c	86c	7.74
10N12208	263X(G-3 1/2)	Blue	2.6	.30	10c	66c	5.94

## 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..... **41c**



**ASST. MACHINE SCREWS**

All standard sizes used in electronic and similar work in handy inexpensive assortment. Contains approximately 40 Nos. 6, 8, 10 screws 1/4" to 1" long.  
 17N15456—Assortment.  
 17N15457—6-32x3/8, pkg. of 40.  
 17N15458—6-32x1/2, pkg. of 35.  
 17N15459—8-32x1/2, pkg. of 30.

**SMALL SCREWS AND NUTS**

Special assortment of extra small screws and nuts Nos. 2 and 4 needed in electronic and experimental work; for fastening small parts, and for replacing rivets. Approximately 30 assorted screws and 30 assorted nuts.  
 17N15455—

**SELF TAPPING SCREWS**

Cut their own thread in either metal or plastic. Ideal for mounting parts on chassis, replacing rivets and eyelets. Package of approx. 30 assorted sizes.  
 17N15450—Assortment.  
 17N15451—Pkg. app. 25, size 6x3/8.  
 17N15452—Pkg. app. 25, size 8x3/8.

**PHONO PICK-UP SCREWS**

Knurled head steel screws, antique bronze. For popular pick-ups and recording heads. Approx. 10 ass't.  
 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 value! Antique bronze finished rosette head screws for mounting speakers and other radio installations. Pkge. contains 15 ass't. sizes.  
 17N15449—

**SPADE BOLTS**

Indispensable for attaching condenser coils, IF cans, for Experimenters, Servicemen and manufacturers. Stud size 6-32. Hole size No. 6. Package of approx. 25 assorted lengths.  
 17N15443—

**SMALL SCREW ASSORTMENT**

Handy assortment for home or workshop. Contains approx. 30 small wood, brass and steel screws sizes 1 to 3 up to 3/8" for name plates and escutcheons.  
 17N15454—

**RUBBER FEET**

Made of oil resistant synthetic rubber for radio phonograph and amplifier bases. Screw or tack type. Package of 12 assorted screw type.  
 17N15407—  
 Pkge. of assort. tack type.  
 17N15408—

**SNAP-IN TRIMOUNTS**

Eliminates use of screws on radio back covers, dial scales, chassis built in antennae. Speeds up assembly and repair.

Stk. No.	Lgth.	For Hole	No. Pcs.
17N15438	11/64"	1/8"	20
17N15439	13/64"	1/8"	25
17N15440	17/64"	9/64"	25
17N15441	9/32"	5/32"	18
17N15442	5/8"	1/8"	16



**TERMINAL LUGS**

Available in 6 popular sizes for radio and electronic work. Tinned brass.

Stock No.	Fig. No.	Approx. No.
17N15419	Asst.	40
17N15420	1	30
17N15421	2	30
17N15422	3	30
17N15423	4	30
17N15424	5	30
17N15425	6	40

**RADIO KNOB SPRING**



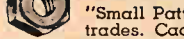
Finest grade selected steel springs in all regular sizes and shapes. Package of approximately 16 assorted.  
 17N15437—

**SPECIAL MOUNTING NUTS**



Various kinds of nuts used on volume controls . . . switches . . . etc. Cadmium or nickel plated. App. 15 ass't.  
 17N15445—

**MACHINE SCREW NUTS**



"Small Pattern" nuts for electric trades. Cadmium plated.

Stock No.	Asst.	40
17N15446	6-32	40
17N15447	8-32	35
17N15448	8-32	35

**ACORN NUTS**



Improves appearance on panel assemblies and cabinets. Pal type steel nuts, self locking. Cadmium plated. Pkg. of 12 ass't.  
 17N15444—

**SPACERS**



Assortment of metal and insulating spacers. Accommodates No. 6 and No. 8 screws.  
 17N15402—App. 12 ass't. insulat.  
 17N15403—App. 12 ass't. metal.

**SMALL COTTER & HAIRPINS**



Assortment of most popular sizes of cotter and hairpins. Valuable aid in radio and phonograph repair. Package of approx. 50.  
 17N15406—

**STEEL SET SCREWS**



Hardened steel set screws, for radio knobs, record changers, etc. Approximately 15 assorted sizes.  
 17N15400—

**METAL WASHERS**



Cadmium plated. Steel washers. Approx. 80 assorted small sizes.  
 17N15433—

**RINGS AND "C" WASHERS**



Standard types and sizes for servicing of volume controls and record changers. Sizes for shafts 1/8" to 5/16" diam.  

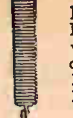
Stock No.	Description	Approx. No.
17N15427	Rings and Washers	35
17N15428	Ring 1/4" shaft	40
17N15429	C washer 1/4" shaft	25
17N15430	C washer 3/16" shaft	25

**SPRING WASHERS**



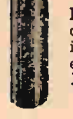
For record changer, automatic tuning assemblies. Assortment of approx. 25 assorted phosphor-bronze and steel friction washers.  
 17N15404—

**EXTENSION SPRINGS**



Handy for radio, electrical shops, laboratories. Assortments contain various sizes for record changers and dial drives.  
 17N15434—10 Ass't. large springs.  
 17N15435—10 Ass't. small springs.

**FUSE INSULATORS**



Highest quality insulators for use on automobile radios. Two lengths included fit all standard 1/4" diameter fuses. Pkg. approx. 16 ass't.  
 17N15405—

**FUSE CLIPS**



Made of nickel plated spring brass for single hole mounting. Pkg. 10 assorted.  
 17N15426—

**SPEED NUTS**



Self locking and easy to install. For replacement on record changers, tuning units. Package of approx. 30 assorted sizes.  
 17N15401—

**CHASSIS MOUNTS**



Long lasting resilient synthetic rubber. To give chassis floating effect. Pkg. of 10 assorted.  
 17N15432—

**PHONO MOTOR DRIVES**



Precision-made replacements for standard motor drives. Made of abrasion-resistant synthetic rubber to insure long, serviceable wear.

No.	I.D.	O.D.	Thick	Per pkg.
17N15413	2"	2 3/8"	5/32"	2
17N15414	1 1/2"	1 3/4"	3/16"	2
17N15415	1 1/8"	1 1/2"	3/16"	3
17N15416	1 1/8"	3/8"	1/4"	4
17N15417	5 3/4"	6"	3/16"	1

**CORD STRAIN RELIEFS**



Provides a grommet and strain relief in one piece. For use on appliance, radio and amplifier power cords. Will prevent insulation of wire from being cut or damaged. Package of 4.  
 17N15431—

**ANGLE BRACKETS**



Handy brackets of various lengths and shapes. Precision made of steel, or brass and plated. Pkg. of approximately 15 ass't.  
 17N15418—

**KEY WRENCHES**



Three assortments of key wrenches to fit all standard Hex and spline socket screws used in radio and electronic equipment. A "must" for the serviceman!

Asst. of 4 small Hex wrenches to fit set screws No. 4 to 1/4", cap screws No. 2 to 8.  
 17N15410—  
 Assortment of 3 medium Hex wrenches to fit set screws 1/4" to 7/16" and cap screws No. 8 to 5/16".  
 17N15411—  
 Asst. of 4 small spline wrenches to fit set screws 1/4"-7/16"; cap scws. No. 8 to 5/16".  
 17N15412—



**RED AND BLACK GROMMETS**



Hard insulating composition. Includes knurled nut.

Hole Dia. L.  
17N14688 (Red) 1/8" 3/8"  
17N14689 (Black) 1/8" 3/8"  
12 for.....43c Each.....40c  
17N14692—Red 1/4" H. 1/2" D. 7"16/L.  
17N14693—Black 1/4" H. 1/2" D. 7"16/L.  
12 for.....80c Each.....83c

**DELUXE ASSORTMENT**



Our most popular hardware assortment conveniently boxed. Contains over 1000 pieces of the most frequently used hardware: assorted machine screws, nuts, bolts, rivets, etc.  
17N14831—Wt. 4 lbs....89c

**PICKUP CARTRIDGE MTG. SCREWS**



Contains small machine and self-tapping screws of various lengths, sizes, styles for fastening cartridge to pickup arm. Pkg. contains approx. 30 screws, spacers.  
17N15483...24c

**RADIO HARDWARE IN JARS**



Most convenient way to keep your small hardware—glass jars with screw-on caps. Any jar below.....33c  
17N14675—Jar only.....6c

**Round Head Machine Screws (A)**

No.	Quantity	Size
17N14650	100	4-36x1/2" long
17N14651	100	4-36x1/2" long
17N14652	75	4-36x3/4" long
17N14653	90	6-32x1/2" long
17N14654	80	6-32x3/4" long
17N14655	70	6-32x1/2" long
17N14656	75	8-32x3/8" long
17N14657	70	8-32x3/8" long
17N14658	65	8-32x3/8" long
17N14659	60	10-32x3/8" long
17N14660	50	10-32x3/8" long

**P-K Tap Screws (C)**

No.	Quantity	Size
17N14665	50	No. 4x1/2"
17N14666	50	No. 6x1/2"
17N14667	45	No. 6x1/2"
17N14668	40	No. 7x1/2"
17N14669	35	No. 10x1/2"
17N14670	45	No. 10x3/8"

**Hexagon Nuts (B)**

No.	Quantity	Size
17N14661	110	4-36x1/2"
17N14662	110	6-32x1/2"
17N14663	90	6-32x3/4"
17N14664	90	8-32x3/8"

**Washers (D)**

No.	Quantity	Size
17N14671	150	No. 6 Plain
17N14672	150	No. 8 Plain
17N14673	100	No. 6 Lockwasher
17N14674	100	No. 8 Lockwasher

**ESCUTCHEON PINS**

Antique finish. Fastens any type of escutcheon or nameplate.  
17N14811—5/16" long. Per 100 14c

**RIVET AND EYELET ASST.**

Special assortment of 55 popular size rivets and eyelets to fasten sockets, etc.  
17N14840.....24c

**DISPLAY AND UTILITY RACK**



Contains 4 shelves for storing 36 hardware jars, small parts, etc. Size: 12x16x8".  
17N22354....3.23



**ASSORTED BRACKETS**

Pkg. of 28 most used angles, brackets.  
17N14838.....41c

**1/4" METAL SPACERS**



Raise components above chassis, etc. Pass Nos. 4, 6, 8 screws.

Stock No.	Height Inches	For Ten	Per 100
17N9868	1/4	21c	\$1.89
17N9869	1/2	25c	2.25
17N9870	3/4	29c	2.01
17N9871	1	32c	2.88

**INSULATING WASHERS**



Fibre. For metal paneling and chassis mounting of all parts.

**Shoulder Type**

Stock No.	O.D.	I.D.	Per 10	Per 100
17N15020	1"	3/8"	11c	99c
17N15021	3/4"	3/8"	8c	72c
17N15022	3/4"	1/2"	7c	63c
17N15023	3/4"	3/4"	7c	63c
17N15025	3/4"	1/2"	7c	63c
17N15026	3/4"	.136"	6c	54c

**Flat Washers**

Stock No.	Size	Per 10	Per 100
17N15030	3/8"	8c	72c
17N15031	1/2"	6c	54c
17N15032	3/4"	6c	54c
17N15036	3/8"	6c	54c
17N15037	1/2"	6c	54c

**ASSORTED FIBRE WASHERS**



Contains 100 plain and shoulder type to fit No. 6, 8, 10 screws, and 1/4", 3/8" and 1/2" holes.  
17N14832.....36c

**SNAP-IN TRIMOUNTS**



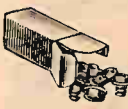
To fasten dial scales, loop antennas and backs on plastic cabinets, etc. Pkg. of 30 ass't.  
17N14839.....24c

**ASST. SELF-TAPPING SCREWS**



40 most often used sizes. No nuts needed—start hole and drive through.  
17N14687.....35c

**RUBBER GROMMET KITS**



Kit "A" contains 12 ass't. grommets in 4 sizes: 3/16-1/2", "B" has 30 in same sizes.  
17N14794—Asst. "A" 21c  
17N14795—Asst. "B" 43c

**RUBBER GROMMETS**



Insulate holes in 1/16" metal panels, chassis, electrical appliances, etc.

Stock No.	Fits Hole	Inside Diam.	Per Doz.	Per 100
17N14765	1/8"	1/8"	9c	60c
17N14766	3/16"	3/16"	16c	65c
17N14768	1/4"	1/4"	20c	70c
17N14769	3/8"	3/8"	22c	75c

**HARDWARE ASSORTMENT**



Over 1000 pcs. of hardware items. Rivets, eyelets, machine screws, lugs, etc. More than 2 lbs. of hardware. Size: 3 1/2 x 3 3/4 x 2 5/8".  
17N14833—3 lbs....79c

**RIGHT ANGLE BRACKETS**

Made of heavy metal. Width 3/8".

Stock No.	Size	Ea.	For 10
17N14895	1/2 x 1/2"	1c	5c
17N14896	3/8 x 3/8"	1 1/2c	13c
17N14897	1 x 1"	2 1/2c	22c
17N14898	1 1/2 x 1 1/2"	3c	27c
17N14899	1 1/2 x 1 1/2"	3 1/2c	31c

**SMALL HDWE. FOR SERVICE SHOPS**



**PLATED MACHINE SCREWS**

Available in three types for all needs.

**6/32 Round Head Screws**

Stock No.	Length	Gross
17N14750	3/8"	39c
17N14751	1/2"	42c
17N14752	3/4"	46c
17N14753	1"	53c
17N14754	1 1/4"	68c

**8/32 Round Head Screws**

17N14755	1/2"	53c
17N14756	3/4"	58c

**6/32 Flat Head Machine Screws**

17N14760	3/8"	38c
17N14761	1/2"	41c
17N14762	3/4"	46c
17N14763	1"	53c
17N14764	1 1/4"	68c

**ANTIQUISHED MACHINE SCREWS**

No.	Size	Lgth.	Doz.	Gr. Lots
17N14680	6-32	1 3/4"	9c	0.95
17N14681	6-32	1"	10c	\$1.02
17N14682	6-32	1 1/2"	11c	1.18

**Round Head Wood Screws**

Stock No.	Size	Length	Gross
17N14780	4	3/4"	39c
17N14781	5	1/2"	41c
17N14782	5	3/4"	45c
17N14783	5	1"	48c

**NUTS & WASHERS—POPULAR SIZES**



17N14804—6/32x1/4" hex nuts. Gr. 48c  
17N14805—8/32x1/4" hex nuts. Gr. 50c  
17N14806—6/32x5/16" hex nuts. Gr. 50c  
17N14807—8/32x5/16" hex nuts. Gr. 50c  
17N14803—10/32x3/8" hex nuts. Gross. .80c  
17N14808—6/32x11/32" knurled nuts. Per 100.....1.10  
17N14809—No. 6 Washers  
17N14810—No. 8 Washers.. 100 for 16c

**A. LOCKING WASHERS**

17N14758—#6 washer. (B)  
17N14759—#8 washer. (B)  
Either type. Envelopes of 25.....6c  
100 for.....20c

**KNOB SET SCREWS**

(B) Case-hardened headless set screws.  
17N14786—1/8"x6/32"..... } 10 for 18c  
17N14787—1/8"x8/32"..... }  
17N14788—1/4"x6/32"..... } 50 for 75c  
17N14789—1/4"x8/32"..... }

**SOLDERING LUGS**

In five types to fit all your soldering requirements.

17N14812—No. 1  
17N14813—No. 2  
17N14814—No. 3, solderless type  
17N14816—No. 4, 5/8" long  
17N14818—No. 5, 3/8" long  
Any above, per 100.....34c  
Per 1000.....3.06

**TAPERED LUGS**

(6) Fits over all screws up to No. 10; shank fits banana plugs. 1 1/4" long, 1/2" wide.  
17N12954—Per doz. 44c

**HEAVY DUTY SPADE LUGS**

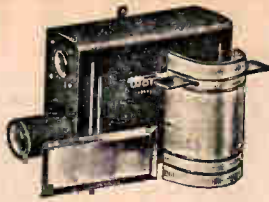
(7) Designed for battery terminals, etc. 1 inch long. No. 10 slot.  
17N14912—Per 10.....8c  
Per 100.....69c



# PHOTO-ELECTRIC EQUIPMENT, KITS

## WORNER FOTOELECTRIC ANNOUNCER

Designed to project a light beam across entrance. Breaking of the light beam by any person entering activates a chime or other device to announce the entrant. Model 61 includes light source, and sensitive photo cell unit in compact metal case. Operates on 115 Volts, 60 cycles AC. Complete with mirror for reflecting light and door chimes. 21N15654—Wt. 7 lbs. **20.14**



## MODEL 301 MIRROR

May be used in connection with any model burglar alarm. Reflects beam around obstructions and criss-crosses area to be protected, making it impossible to avoid beam. Reflects light up to 10 ft. 8x4x2 1/2". 21N15657—Mirror. Shpg. wt. 3 1/2 lbs.. **5.88**



## WORNER BURGLAR ALARM SYSTEM

Light source projects beam of invisible infra-red light to condensing lens of receiver. Interruption of light beam or disconnection of power to the unit operates a relay which may be connected to any audible or visible alarm device. Alarm is continuous and can only be silenced by the possessor of key to pick-proof switch lock on the receiver. Mirrors may be used to project the light beam around a room to protect several entrances simultaneously. May be operated with light beam lengths of up to 100 feet. For 110 volts 60 cycles AC operation only. Shipping weight 10 lbs. 21N15659..... **55.12**



## WORNER INDUSTRIAL PHOTO-ELECTRIC SET

2-unit system with countless industrial usages. Relay in receiver unit operates up to 500 times per minute. Receiver includes light cell, amplifier sensitivity control and relay. Sensitivity may be set so that unit is not affected by daylight or artificial light. Contains low-voltage bulb with about 2000 hours life. Throws concentrated beam to 50 feet. Less courier. 21N15655—Industrial Photo-Electric Set. Wt. 12 lbs..... **51.45**



## DETECT-O-RAY ELECTRIC EYE

A labor-saving, life-saving device that has made itself a part of the home as well as industry. May be used to provide perfect burglar and fire protection for homes, stores, offices or factories in addition to its numerous industrial applications such as safety devices on machines, such as conveyor controls, electric door openers and counters.

Detect-O-Ray Electric Eye projects a light beam which is reflected by a small external mirror to the photo cell in the unit. Any object coming within their path and breaking either beam instantly activates an alarm, bell, camera, safety device, or sets into action any other unit you may wish to perform work automatically. Effective range of the white beam is 60 feet; range of the "unseen" beam is approximately 35 feet. Switch on front panel offers selection of beams, depending on type of operation desirable. Sensitivity dial regulates reaction of unit to purpose and conditions for which it is employed. Also includes signal selector for choice between Continuous Action from one break-in beam until shut off—or Single Action with each break. Easy to install—merely plug into any light socket operating on 110 volts AC. Conveniently housed in black wrinkle finished steel case. Dimensions: 5"x6 1/4"x7". 21N15725—Electric Eye with Outside Mirror. Wt. 7 lbs... **27.78**



## DETECT-O-RAY L-205 POWER RELAY

Carries 1000 watts, at 110 volts AC—requires no extra wiring to be used for controlling most motors, machinery, etc. Input plugs into socket, output into motor, etc. 21N15724—Shpg. wt. 2 lbs. **6.86**



## CETRON PHOTOTUBES FOR USE IN WORNER UNITS

Type CE-23-C—Gas. 160 microamps average sensitivity. 21N10580—Shpg. wt. 8 oz..... **2.84**  
Type CE-1-D—Gas. 100 microamps average sensitivity. 21N10581—Shpg. wt. 8 oz..... **2.55**

## TORK FREEZALARM



An indispensable installation for farms, homes and institutions using the services of a deep-freeze refrigeration unit. Insures against spoilage of frozen food by giving warning of electrical or mechanical failure of the deep freeze unit. Provides a single stroke alarm bell every few sec. for 18 to 20 hrs. Tork Freezalarm uses a spring-driven mechanism fully wound but electrically locked.

Alarm acts as double safeguard—a sharp rise in temperature or a power failure will automatically set off alarm. Always keep fully wound—gauge indicates how many hours of tension remains in spring-driven unit. Alarm is quickly and easily installed with any deep-freeze unit. For 110 Volt AC operation only. 21N15605..... **24.50**

## TORK ELECTRIC TIME SWITCHES



Has innumerable applications in the home, on the farm, or in industry. May be used to turn on chicken brooders, oil 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 110 volts 60 cycles AC current. Model 191B has 2 1/2 minute ratchet dial. Capacity of 20 amps, 2000 watts. Designed for general use. Overall size: 8 1/2 x 5 x 3 3/4". Comes complete with single-pole on-off switch. 21N15600—Shpg. wt. 8 lbs..... **9.10**

Model 962B—Double Pole. Capacity 4000 watts, 20 amp, per pole. 21N15601..... **10.50**

Model 191BP Poultry House Lighting Timer. For morning and evening operation. Bright light circuit 2000 W.; dimmer 800 W. 21N15602..... **12.95**

Personal Model similar to Model 191B but in portable case, fitted cord and plug and a clock controlled receptacle. Automatic control at 15-min. intervals of fans, heaters, bedside radios. Minimum setting of 45 minutes between on and off positions. 21N15603..... **8.40**

21N15604—Same as above but 1320 watt capacity..... **9.45**

## ELECTRIC EYE AMPLIFIER KIT



Burglar alarm, door announcing, counting and sorting are just a few of the many applications of this easy-to-assemble photo electric eye amplifier. Operates with any light source. Kit contains all necessary parts, including case and easy-to-follow instructions for assembly. Case dimensions: 5 1/2 x 4 1/2 x 2 1/2". Operates on 115 volts, AC or DC current. 21N15672—Shpg. wt. 2 1/2 lbs.... **9.75**

## PHOTO ELECTRIC LIGHT KIT



Dependable light source for above amplifier kit. Projects a beam of light 25 feet long. Light source kit includes light bulb, socket and all necessary parts including carrying case and simplified easy to follow instruction. Designed to operate on 115 volts, AC or DC current. 21N15673—Shpg. wt. 2 1/2 lbs.... **5.83**

## IRIS ELECTRIC EYE PHOTOCELL



Self-generating, barrier-layer type, mounted on plastic window. Develops several hundred microamperes depending on intensity of illumination and resistance of external circuit. No external battery required. Standard model sensitivity 15 microamperes, Jumbo 100 microamperes using 100 watt frosted tungsten lamp at 1 ft. Soldered pigtail leads. 21N10598—Stand. Model, 1-3/16" sq. x 1/4". **1.50**

21N10599—Jumbo Model, 1 1/2" sq. x 1/4".... **3.00**

## SELENIUM PHOTO-CELL



Barrier layer, self-generating type—light striking upon cell generates current sufficient 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. 21N10576—Photo Cell. Shpg. wt. 8 oz.... **9.37**



**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. All-steel contents.

struction, lithographed in attractive two-tone green. Ample drawer depth permits storage of reasonably large parts. Overall dimensions: 2 $\frac{3}{8}$ "x2 $\frac{1}{4}$ "x5".  
18N22381—Shpg. wt. 10 oz. 10 for... 3.60 Each... **40c**

**LYON ALL-STEEL CABINET BENCH**



May be used anywhere—in shops, offices, factories, schools, and other institutions. Heavy steel top makes sturdy mounting for small grinders and vises or office machines. Provides twelve square feet of storage area protected by double swinging doors with 3-point locking device. Back and end stops are detachable—may be removed to provide a flat, smooth surface. Center shelf is

adjustable on 1 $\frac{1}{2}$ " centers—may be positioned anywhere desired within the cabinet. Built-in flat key lock gives adequate protection against burglary. Durable, long wearing finish is attractive Lyon Green baked-on enamel. Dimensions: 36" wide, 24" deep, 34" high plus detachable 3" backstop.  
18N22416—Shipping weight 176 lbs. F.O.B. Chicago.... **30.00**

**LYONS 34" HIGH TOOL STAND CABINET**

A handy fixture for shops, garages, stockrooms, laboratories, maintenance departments, photo studios, vocational schools, etc. Furnishes small working surface and space to lock up important blueprints, drawings, tools, dies, precision instruments. Working area is 315 square inches—shelf area under lock and key is 9 square feet. Provision made for adjustment of shelves—three shelves may be positioned to within 2 inches of one another if desired, or as wide apart as required. For added convenience the top may be reversed to provide a smooth, flat working surface. Finish is Lyon Green baked-on enamel. Dimensions: 21 $\frac{1}{2}$ " wide, 15 $\frac{1}{2}$ " deep, 34" high.  
18N22414—Wt. 76 lbs.  
F.O.B. Chicago..... **17.35**



**LYONS 37" HIGH TOOL STAND CABINET**

Same as cabinet above, but furnished with easy-gliding casters for ease in moving cabinet about. Dimensions with casters: 21 $\frac{1}{2}$ " wide, 15 $\frac{1}{2}$ " deep, and 37" high.  
18N22415—Shpg. wt. 76 lbs. F.O.B. Chicago..... **19.75**

All prices on Lyon items are F.O.B. Chicago warehouse and will be shipped from Chicago. Due to steel shortages delivery will take approximately 4 weeks after receipt of order.

**CARTER SUPER-CONVERTERS**

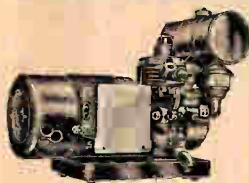


Small, compact quiet running 2-pole, fan-cooled units. Used to change 115 volts DC to 115 volts 60 cycles AC. For non-inductive loads. Minimum load P.F. is 85%. All models below are continuous duty type. 13 lb. frame is 8 $\frac{1}{4}$ "x4 $\frac{1}{2}$ "x4 $\frac{3}{4}$ ". 19 lb. frame is 10 $\frac{1}{4}$ "x4 $\frac{1}{4}$ "x4 $\frac{3}{4}$ ".

- 21N17214—Model. 100-Watts. Wt. 13 lbs..... **41.16**
- 21N17215—Model. 150-Watts. Wt. 13 lbs..... **44.59**
- 21N17216—Model. 200-Watts. Wt. 19 lbs..... **50.76**
- 21N17218—Model. 250-Watts. Wt. 19 lbs..... **54.19**

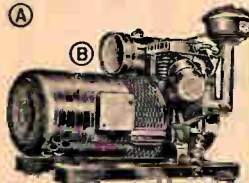
**KATO GAS-ELECTRIC PLANTS**

Filtered, shielded, compact and lightweight as the best engineering can provide consistent with rugged durability and power output. Both models illustrated provide 115 volts 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 gasoline engines.



A. Portable units. 500 watt unit has 1 h.p. single-cylinder engine. 600 watt unit has 1.4 h.p. single-cylinder engine. Will run 6 to 6 $\frac{1}{2}$  hours on 1 gallon of gasoline. Units have start and stop push buttons. With cutout, DC ammeter, charging control resistor, battery cables. One 6-volt storage battery required for starting (not supplied).

Model No. 23HAB4. Rated at 500 watts.  
21N19819—Weights 170 lbs. **136.00**



A. Model No. 14HAB4. Rated at 600 watts.  
21N19820—Weights 200 lbs. **176.00**

B. Model 26HAB4. Heavy duty unit. 1000 watts continuous duty output. Single-cylinder, 4-cycle, 2.4 h.p. engine. Runs 4 $\frac{1}{2}$  hours on one gallon of gasoline. Manual starting.

21N19821—Weights 295 lbs. **256.00**

**TRINDL 75A ARC WELDERS**

For industrial maintenance work, garages, farm machinery repairs, etc. Can be operated by anyone following directions supplied. Portable model operates from 110 volt line—welds iron, steel, brass and other metals, from 20 gauge to 1/8" thick on a



single pass—much thicker work by repeating passes. Handles 1/16 to 3/32" welding rods. 9 heat stages from 20 to 60 amps., comes complete with headshield, electrode holder, 2 welding clamps, welding rods and detailed instructions. Overall dimensions: 10"x13"x10". Shipping weight 40 pounds.

- 21N25625—For 110 Volts, 60 Cycles..... **38.71**
- 21N25626—For 220 Volts, 60 Cycles..... **41.65**
- 21N25627—For 110/220 Volts, 60 Cycles..... **47.53**

**TRINDL MODEL 125A ARC WELDER**

Similar to Model 75-A above but larger and designed for heavier duty. Welds metals up to 3/16" thick on single pass. Capable of handling 1/6 to 5/32" welding rod. Vernier-type arc control, 16 heat stages from 10 to 125 amps maximum, 110 amps continuous. Input line frequency 50 to 60 cycles. Dimensions: 10 $\frac{1}{2}$ "x15 $\frac{5}{8}$ "x10 $\frac{1}{8}$ ". Comes complete with all accessories and operating instructions. Shpg. wt. 100 lbs.

- 21N25630—For 110 Volts..... **68.11**
- 21N25631—For 220 Volts..... **68.11**
- 21N25632—For 110/220 Volts..... **77.91**

**TRINDL ARC TORCH**

Works with any 60 to 125 amp. AC or DC arc welder. Anyone can weld, braze, or solder on aluminum, brass, bronze, iron, steel, etc. Complete with 7 $\frac{1}{2}$  ft. cables, four 1/4x6" carbons, two taper jack plugs, and simplified operating instructions.



Carbon Electrodes:  
21N25648—1/4x6", 12 for 1.47  
21N25649—3/8x6", 12 for 1.76

21N25635—Shpg. wt. 3 lbs. **6.66**

**AUDEL'S WELDER'S GUIDE**

422 pages of fundamental welding operations, as well as specialized techniques of hand, machine welding. Handy reference index for immediate solution to all welding problems.

23N20296—Size: 5x6 $\frac{5}{8}$ ". Postpaid..... **98c**

**TRINDL SPEEDWELD WELDING RODS**

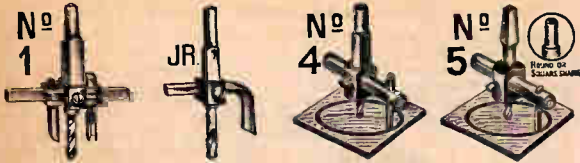
A high grade, deep penetrating, mild steel general purpose shielded arc welding electrode. For use with AC transformer-type machines or on straight polarity with DC welders. Light tan flux coating. Furnished in 5-lb. packages at package costs as below.

Stock No.	Size	Min. Amps.	Max. Amps.	Your Cost
21N25637	1/8x14"	70	120	.98
21N25638	3/16x14"	120	200	.89
21N25639	1/4x14"	150	280	.85
21N25650	1/8x 9"	20	40	3.25
21N25651	3/16x 9"	20	60	2.55
21N25636	1/4x12"	30	80	1.45



# ALL-PURPOSE SERVICING TOOLS

## GENERAL PURPOSE STEEL CIRCLE CUTTERS



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

Cat. No.	Type No.	Cuts Hole	Shank	Type Work	Cost
18N14720	JR	3/8 to 2 1/2"	Round	Light	78c
18N14711	4	7/8 to 4"	Round	Medium	1.30
18N14713	5	1 to 5 1/2"	Round	Heavy	1.88
18N14715	5	1 to 5 1/2"	Square	Heavy	1.88
18N14717	1†	7/8 to 4"	Round	Medium	1.88
18N15069	5	1 1/4 to 8"	Square	Ex. Heavy	3.88

†Has extra beading cutter.

## REPLACEMENT DRILLS, BLADES FOR ABOVE

18N15068	—Drill for use with 18N15069.....	35c
18N14716	—Blade for above except 18N15069, 18N14720.....	30c
18N15070	—Blade for use with 18N15069.....	50c

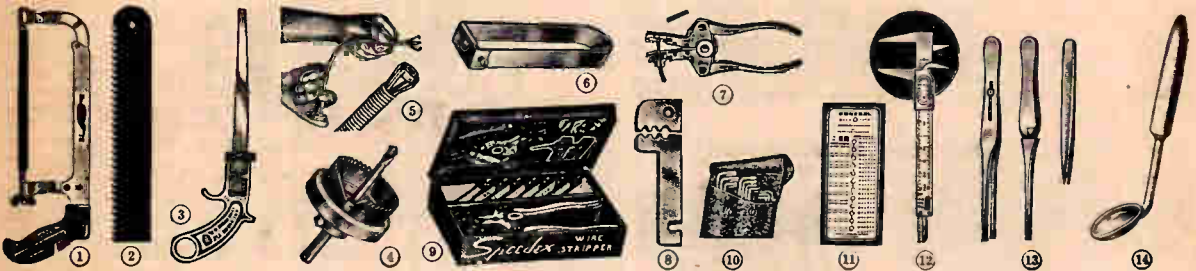
## BEVELED WOOD CHISELS AND CHISEL KIT



Correctly proportioned bevels — high grade heat-treated steel blades, Amberlite handles.

18N15513	—1/4" Blade.....	45c	18N15514	—1/2" Blade.....	49c
18N15515	—3/4" Blade.....	52c	18N15516	—1" Blade.....	56c

CHISEL KIT: All above chisels in strong canvas roll.  
18N15517—Buy the Complete Set and Save..... 2.25



## ADJUSTABLE HACK SAW

1. Accommodates 8" to 12" blades. Blade may be faced in four directions. Easy-grip composition handle, nickel-plated stock. Comes complete with 8-inch blade. Shipping weight 2 pounds.  
18N17282—Hack Saw..... 79c

## FLEXIBLE HACK SAW BLADES

2. Fits all standard frames. Heat-treated for extra-hardness, 1/2" wide. .025" thick.

Cat. No.	Lnth.	Teeth/Inch	Ea.	Doz.
18N17273	10"	18	7c	67c
18N17274	10"	24		
18N17275	12"	18	8c	80c
18N17276	12"	24		

## "ALL-PURPOSE" HACKSAW

3. Handy for tight places—fits where ordinary hack saws cannot be used. Complete with 7 1/2-inch tapering blade.  
18N17278—Hack Saw..... 26c  
18N17279—Extra Blades, Each..... 12c

## MISENER ROTARY HACK SAW

4. Ideal hole cutter for wood, metal, bakelite, etc. 3/8" round shank.  
18N17250—3/4" Hole Size..... 2.42  
18N17251—7/8" Hole Size..... 2.42  
18N17252—1" Hole Size..... 2.42  
18N17253—1 1/8" Hole Size..... 2.42  
18N17254—1 1/4" Hole Size..... 2.47  
18N17255—1 3/8" Hole Size..... 2.47  
18N17256—1 1/2" Hole Size..... 2.47

COMBINATION TOOL: Cuts holes from 3/4" to 2 1/4" in eleven 1/4" steps.  
18N17265—With 3/8" round shank..... 10.14  
18N17267—Extra Shanks, 1/4" Round..... 1.01  
18N17268—Extra Shanks, 3/8" Round..... 1.01  
18N17269—Shank for Hand Brace..... 1.01

## FLEX-O-CLAW GRASPING TOOL

5. Forward-to-get-at places. Flexible, easy-to-use. 1/4" diameter. Comes in 4 lengths.  
18N14728—12" Length..... 57c  
18N14729—15" Length..... 63c  
18N14730—18" Length..... 73c  
18N14731—22" Length..... 83c

## NEW MPC WIRE STRIPPER

6. Hardened steel blades adjustable for wire size, avoids biting wire off. Tool cuts insulation sharp and clean, strips it off solid or stranded with easy pull. Excellent for use in hard-to-reach places. Handles up to No. 12 wire.  
18N15043—Wire Stripper..... 59c

## SPEEDEX HANDY WIRE STRIPPERS

7. Fast, pocket-size tool strips insulation easily from all types of wires and cables. Use on ends or center of wire. Will not damage solid or stranded wire. Deluxe tools stay open while wire is removed.  
Size Standard Deluxe  
14-24 wire 18N15538 .353 18N15565 .470  
12-20 wire 18N15537 .353 18N15566 .470  
10-18 wire 18N15539 .353 18N15567 .470

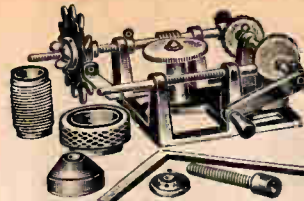
## 8. REPLACEMENT BLADES FOR ABOVE

18N15596—12 to 20 Wire Size..... 88c  
18N15597—14 to 24 Wire Size..... 88c  
18N15598—10 to 18 Wire Size..... 88c  
18N15599—Parallel No. 18 POSJ..... 88c  
18N15595—For 300 Ohm Line..... 88c

## SPEEDEX WIRE STRIPPER KIT

9. Contains wire stripper, 7 different blades in steel box. Handles No. 8 to No. 30 wire. Shpg. wt. 3 lbs.  
18N15588—Deluxe Stripper Kit..... 10.00  
18N15569—Standard Stripper Kit..... 8.82

## DELUXE COIL WINDER WITH ACCESSORIES



Easy-to-use set winds honey comb, spiderweb, or solenoid coils of various widths and diameters — equal in appearance to factory job. Indicator counts turns. With accessories for winding all types and instructions. Wt. 6 lbs.  
18N14725..... 4.95

## PORTABLE, EASY-TO-USE ELECTROPLATERS



Ideal for home or workshop. Re-plates jewelry, utensils, radio parts, etc. Each kit contains: 1-oz. of plating compound; 1-oz. of metal polish; 1 anode brush; battery wires with clips attached. Operates on two 1 1/2 V. cells (not supplied). Instructions included. Shpg. wt. 1 1/2 lbs.

18N15359	—Nickel Plating Outfit.....	1.10
18N15360	—Copper Plating Outfit.....	1.10
18N15370	—Cadmium Plating Outfit.....	1.10
18N15371	—Silver Plating Outfit.....	1.47

## EXTRA COMPOUNDS FOR ABOVE: Plate 125-175 sq. inches.

18N15372	—Nickel Compound, 1-oz. Bottle.....	37c
18N15373	—Copper Compound, 1-oz. Bottle.....	37c
18N15374	—Cadmium Compound, 1-oz. Bottle.....	37c
18N15375	—Silver Compound, 1-oz. Bottle.....	73c

INDUSTRIAL KIT: Includes 8-oz. Electrolyte, Sterling Silver Applicator, 4-oz. metal cleaner, instruction.  
18N15376—Shipping wt. 3 pounds..... 7.50

## ADJUSTABLE HACK SAW

1. Accommodates 8" to 12" blades. Blade may be faced in four directions. Easy-grip composition handle, nickel-plated stock. Comes complete with 8-inch blade. Shipping weight 2 pounds.  
18N17282—Hack Saw..... 79c

## FLEXIBLE HACK SAW BLADES

2. Fits all standard frames. Heat-treated for extra-hardness, 1/2" wide. .025" thick.

Cat. No.	Lnth.	Teeth/Inch	Ea.	Doz.
18N17273	10"	18	7c	67c
18N17274	10"	24		
18N17275	12"	18	8c	80c
18N17276	12"	24		

## "ALL-PURPOSE" HACKSAW

3. Handy for tight places—fits where ordinary hack saws cannot be used. Complete with 7 1/2-inch tapering blade.  
18N17278—Hack Saw..... 26c  
18N17279—Extra Blades, Each..... 12c

## MISENER ROTARY HACK SAW

4. Ideal hole cutter for wood, metal, bakelite, etc. 3/8" round shank.  
18N17250—3/4" Hole Size..... 2.42  
18N17251—7/8" Hole Size..... 2.42  
18N17252—1" Hole Size..... 2.42  
18N17253—1 1/8" Hole Size..... 2.42  
18N17254—1 1/4" Hole Size..... 2.47  
18N17255—1 3/8" Hole Size..... 2.47  
18N17256—1 1/2" Hole Size..... 2.47

COMBINATION TOOL: Cuts holes from 3/4" to 2 1/4" in eleven 1/4" steps.  
18N17265—With 3/8" round shank..... 10.14  
18N17267—Extra Shanks, 1/4" Round..... 1.01  
18N17268—Extra Shanks, 3/8" Round..... 1.01  
18N17269—Shank for Hand Brace..... 1.01

## FLEX-O-CLAW GRASPING TOOL

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18N14729—15" Length..... 63c  
18N14730—18" Length..... 73c  
18N14731—22" Length..... 83c

## NEW MPC WIRE STRIPPER

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18N15043—Wire Stripper..... 59c

## SPEEDEX HANDY WIRE STRIPPERS

7. Fast, pocket-size tool strips insulation easily from all types of wires and cables. Use on ends or center of wire. Will not damage solid or stranded wire. Deluxe tools stay open while wire is removed.  
Size Standard Deluxe  
14-24 wire 18N15538 .353 18N15565 .470  
12-20 wire 18N15537 .353 18N15566 .470  
10-18 wire 18N15539 .353 18N15567 .470

## 8. REPLACEMENT BLADES FOR ABOVE

18N15596—12 to 20 Wire Size..... 88c  
18N15597—14 to 24 Wire Size..... 88c  
18N15598—10 to 18 Wire Size..... 88c  
18N15599—Parallel No. 18 POSJ..... 88c  
18N15595—For 300 Ohm Line..... 88c

## SPEEDEX WIRE STRIPPER KIT

9. Contains wire stripper, 7 different blades in steel box. Handles No. 8 to No. 30 wire. Shpg. wt. 3 lbs.  
18N15588—Deluxe Stripper Kit..... 10.00  
18N15569—Standard Stripper Kit..... 8.82

## HEX & SPLINE WRENCH KIT

10. Contains complete range of wrench keys, both hex (allen) and spline (Bristol) for No. 2 to 3/8" screws—all wrench sizes used in the electronic trade. Comes in durable leatherette case.  
18N15488—Shpg. wt. 8 oz..... 97c

## DRILL AND WIRE GAUGE

11. Highly accurate, pocket-size tool with easy-to-read numerals. Drill, tap size and decimal equivalents of each. Of hardened and tempered steel.  
18N14997—Shpg. wt. 1 lb..... 95c

## VERNIER SLIDING CALIPER

12. Sharp pointed projections for accurate dividing, scribing, etc. Lock nut insures against errors caused by sliding gauge. Rule graduated in 16th and 32nds plus 5" depth gauge. Precision-made.  
18N15027—Shpg. wt. 1 lb..... 98c

## WALSCO SERVICE TWEEZERS

13. Serve hundreds of useful purposes. Of polished nickel-plated spring steel.  
18N15484—Self-Closing Type, 6 1/2" long, with blunt points..... 47c  
18N15485—Heavy-Duty Type, 6 1/2" long, with slide lock and blunt points..... 71c  
18N15486—Precision Type, 4 1/2" ptd..... 32c  
18N15487—All 3 in leatherette case..... 1.91

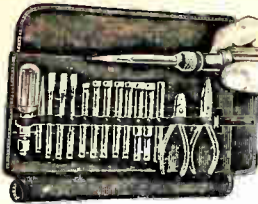
## NEW G-C INSPECTION MIRROR

14. Long-handled inspection mirror makes it possible to see inside chassis—inspect coils, parts, connections.  
18N15322—Mirror. Wt. 8 oz..... 29c



# TIME-SAVING HAND TOOLS

## DELUXE CHUCK TYPE SPINTITE KIT



Consists of chuck type handle for use with wrench shanks, screw drivers and reamer.  $\frac{3}{8}$ ",  $\frac{1}{4}$ ",  $\frac{1}{8}$ ",  $\frac{1}{16}$ ",  $\frac{3}{16}$ ",  $\frac{1}{8}$ " and  $\frac{1}{2}$ " wrench shanks;  $\frac{1}{8}$ ",  $\frac{1}{16}$ " and  $\frac{1}{4}$ " by 4" screw drivers;  $\frac{1}{8}$ " to  $\frac{1}{4}$ " Ream awl; one 7" long nose, one 5" diagonal cutting pliers, one neutralizing alignment wrench. In leatherette roll.

18N15571—Less Pliers and neutralizer. Wt. 2 lbs. .... 5.44  
18N15572—Wt. 3 lbs. .... **9.11**

## STEVENS-WALDEN MIDGET WRENCH SETS



Compact, convenient-to-carry set designed for accurate work on meters, radios and other small appliances. Consists of 8 midget hex sockets  $\frac{1}{16}$ " to  $\frac{1}{8}$ "; 3 double square sockets  $\frac{1}{4}$ ",  $\frac{3}{8}$ " and  $\frac{1}{2}$ " sizes; ratchet, hinge and spintite handles plus 6" long extension and sliding tee handle. Complete set in all metal carrying case. Shipping weight 4 pounds.

18N15573—Deluxe Set Type 3100..... **9.44**

**STANDARD SET:** As above less ratchet, sliding tee handles and extension. Wt. 2 lbs.

18N15574—Standard Set Type 3100 A..... **5.26**

## WALSCO LIGHTWEIGHT STAPLE DRIVER



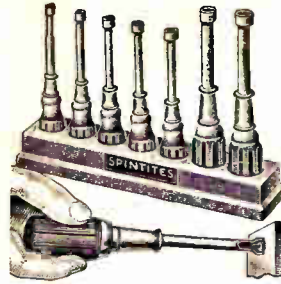
Fully automatic — for neater, faster jobs on wire and cable. Staples wires up to  $\frac{1}{4}$ " diameter. Magazine holds 24 staples. With box of 250 staples.

18N15091—WalSCO Staple Driver. Shpg. wt. 2 lbs. .... **4.85**

**RUBBER CAP** for plunger head—makes it easier on the hand. .... 22c  
18N15090—Rubber Cap..... 22c

## STEVENS-WALDEN "SPINTITE" WRENCHES

Invaluable for servicemen! Handy wrench works like a screw-driver. Cadmium-plated steel, hardwood handle.



Part	Hex Nut
18N15556—3406	$\frac{3}{16}$ "
18N15562—3407	$\frac{1}{4}$ "
18N15563—3408	$\frac{1}{2}$ "
18N15564—3409	$\frac{3}{4}$ "
18N15557—3410	$\frac{1}{2}$ "
18N15558—3411	$\frac{3}{4}$ "
18N15559—3412	$\frac{1}{2}$ "
6" Length. Any above.....	41c
18N15560—3414	$\frac{1}{2}$ "
18N15561—3416	$\frac{1}{2}$ "
$7\frac{1}{2}$ " Length. Any above.....	59c

**SPINTITE SET:** 7 wrenches in convenient holder. Includes  $\frac{1}{16}$ ",  $\frac{1}{8}$ ",  $\frac{1}{4}$ ",  $\frac{3}{8}$ ",  $\frac{1}{2}$ ",  $\frac{3}{4}$ " and  $\frac{1}{2}$ " sizes.  
18N15570—Wt. 3 lbs. .... **3.82**

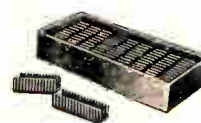
## GOOD QUALITY TOMAHAWK SOCKET WRENCH SET



Handy, compact little set for hard-to-reach places. Consists of  $3\frac{1}{2}$ " L handle and 6 hexagon sockets. Cadmium-plated.

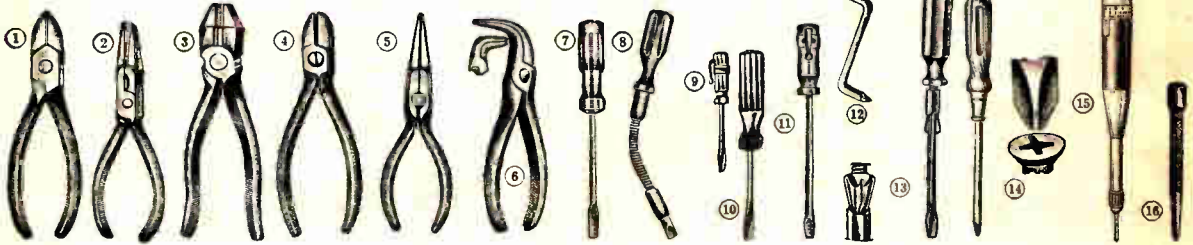
Hexagon socket sizes:  $\frac{3}{16}$ ",  $\frac{1}{4}$ ",  $\frac{1}{8}$ ",  $\frac{3}{8}$ ",  $\frac{1}{2}$ " and  $\frac{1}{2}$ ".  
18N15589—Tomahawk Wrench Set. Shpg. wt. 1 lb. .... **35c**

## WALSCO CARBON TOOL STEEL STAPLES



In handy strips especially made for the WalSCO Staple Driver. Brown color outside, inside coated with special clear insulating lacquer.

18N15093—Box of 250..... **35c**  
18N15099—Box of 1000..... 1.32  
18N15100—Box of 5000..... 5.73



## KRAEUTER STANDARD PLIERS

From Kraeuters extra-quality "Standard" series—made to stand up under severe strain. Drop forged from extra high grade steel with "blue temper" finish. These are not the lower-priced "K" tools.

**1. DIAGONAL CUTTING PLIERS.**  
18N14942— $4\frac{1}{2}$ " Length..... 1.53  
18N14944—6" Length..... 2.00

**WIRE STRIPPING DIAGONAL CUTTER:**  
As above, but with notch in blades for .062 wire and spring in handle.  
18N14947— $6\frac{1}{2}$ " Length..... 2.42

**2. LONG NOSE PLIERS** with side-cutting blades. Choice of short-jaw and long-jaw needle nose types.  
18N14946—5" Length Short Jaw..... 1.70  
18N14945—6" Length Long Jaw..... 1.96

**3. ELECTRICIAN'S CUTTER:** Modified pliers—fitted lap joint, cutters.  
18N14935— $6\frac{1}{2}$ " Length..... 1.79  
18N14936—8" Length..... 2.34

## GENUINE "KLEIN" PLIERS

Of finest alloy tool steel individually tempered for long-life cutting edges.

**4. OBLIQUE CUTTING PLIERS** with wire stripping notch, lap joint.  
18N15223—Narrow head, 5" Length..... 2.75

**5. LONG NOSE SIDE CUTTERS**—pointed slender nose, sharp cutters.  
18N15221—6" Length..... 3.00

**6. LONG CURVED NOSE PLIERS**—Very useful for work in close quarters.  
18N15224—6" Length..... **3.00**

## "RHINO" SHOCKPROOF SCREWDRIVERS

7. Finest screwdrivers for electrical use. Special analysis steel blade embedded in non-shock Amberlite handle.

18N15345— $3\frac{1}{2}$ " Blade ..... 41c  
18N15346— $6\frac{1}{2}$ " Blade ..... 54c  
18N15347— $8\frac{1}{2}$ " Blade ..... 62c

## "ICA" FLEXIBLE SCREWDRIVER

8. Strong, unbreakable, flexible shaft and insulated movable screw locator; finds slots of screws. Length  $8\frac{3}{4}$ ".

18N15062—Shpg. wt. 2 lbs. .... **1.18**

## "VACO" POCKET SCREWDRIVERS

9. Transparent amber colored plastic handles. Tool steel blades, shockproof construction. With pocket clip.

18N15323—3" length..... **15c**

## NEON-LIGHT SCREWDRIVERS

10. Neon lamp for R.F. built into amber pyroxolin handles.

18N15348— $4\frac{1}{4}$ " Length ..... 29c  
18N15349—7" Length ..... 59c

## "VACO" AMBERYL RADIO SCREWDRIVERS

11. Blade diameter small enough for radio set screws. With shock-proof amber colored plastic handles and rust-proof oil-tempered tool steel blades.

18N15324— $1\frac{1}{2}$ "x4" Blade ..... 35c  
18N15325— $1\frac{1}{2}$ "x6" Blade ..... 35c  
18N15326— $1\frac{1}{2}$ "x8" Blade ..... 39c

## "PHILLIPS" OFFSET SCREWDRIVER

12. One end for Phillips No. 1 size, other for No. 2 size. Alloy steel.

18N15255—Offset Driver..... **35c**

## GRIPPER SCREWDRIVERS

13. Gripper holds screw, releases instantly when screw is driven—ideal for tight places. Amber plastic insulated handles with tempered steel blades.

18N14710— $2\frac{1}{2}$ "x $\frac{3}{16}$ " Blades ..... 26c  
18N14721— $4\frac{1}{2}$ "x $\frac{3}{16}$ " Blades ..... 46c  
18N14709— $6\frac{1}{2}$ "x $\frac{3}{16}$ " Blades ..... 50c  
18N14722— $10\frac{1}{2}$ "x $\frac{3}{16}$ " Blades ..... 52c

Same as above, but for Phillips head screws. Fits all sizes.  
18N14746— $2\frac{1}{2}$ "x $\frac{3}{16}$ " Blades ..... 46c  
18N14747— $4\frac{1}{2}$ "x $\frac{3}{16}$ " Blades ..... 55c  
18N14748— $6\frac{1}{2}$ "x $\frac{3}{16}$ " Blades ..... 59c

## RECESSED HEAD SCREWDRIVERS

14. Sturdily made with sure-grip wooden handles and steel blades.

No.	Size	Length	Cost
18N15251	Up to 4	$6\frac{3}{4}$ "	25c
18N15252	5 to 9	$8\frac{3}{4}$ "	25c
18N15253	10 to 16	$11\frac{1}{2}$ "	33c

## AUTOMATIC PUSH DRILL

15. 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 drill sizes:  $\frac{1}{16}$ ",  $\frac{1}{8}$ ",  $\frac{3}{16}$ ",  $\frac{1}{4}$ ",  $\frac{5}{16}$ ",  $\frac{3}{8}$ ",  $\frac{1}{2}$ " and  $\frac{5}{8}$ ". Red plastic handle, nickel and aluminum metal parts.  $9\frac{1}{8}$ " long.

18N17184—Shpg. wt. 1 lb. .... **2.57**

## "CAN'T ROLL" CENTER PUNCH

16. Tempered steel with large square head and knurled grip.  $4\frac{1}{4}$ " long.

18N14999— $325$ " dia. Wt. 1 lb. .... **12c**



# HANDY LOW-COST HOBBY TOOLS

## BURGESS ALL-PURPOSE VIBRO-TOOL KIT



Handy kit for filing, chiseling, hammering or grooving soft metals, cutting wood, cardboard and textile patterns, or marking lines on or drilling glass. Includes one Vibro-tool, a standard engraving needle, a tantalum carbide needle, one curved and one straight edged knife and foot gauge, 6 wood chisels, abrasive point, 6 leather working tools and 5 ball points. In polished wooden case. For 110 volts 60 cycle AC.

18N15625—List price...16.50. Shpg. wt. 4 lbs. Net..... **9.90**

VIBRO-TOOL only with standard engraving needle. **4.50**  
18N15620.....

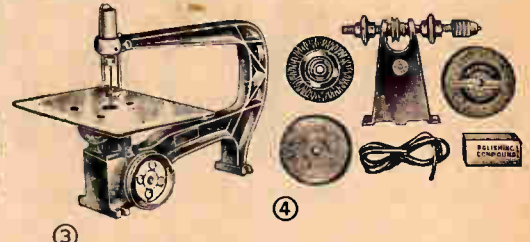
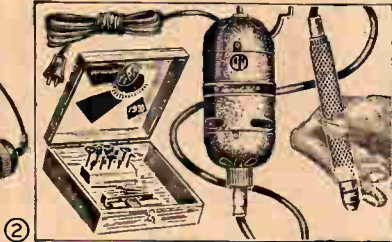
CARVING CHISELS for wood linoleum, six to package **90c**  
18N15632.....

ABRASIVE POINT for frosting glass, etc. **45c**  
18N15634.....

FOOT GAUGE for knife attach. to regulate depth. **57c**  
18N15636.....

DIAMOND POINT for continuous glass work, fine engraving on jewelry. **3.58**  
18N15633.....

SET of 6 leather tools, slotter, 1/8" punch, liner, deer-foot, spoon, double liner, cupper. **90c**  
18N15635.....



## DELUXE HANDEE GRINDER KIT IN STEEL CASE

1. Hand-size, with high-speed, 25,000 RPM motor. 27 accessories include: rubber polishing wheel and saw with mandrels; slitting saw; 2 steel cutters; 3 drills; push-pin mandrel; steel wire cavity brush; bristle brush; wire scratch brush; rubber disc; felt and rubber polishing points; felt polishing wheel; drum sander, discs; 6 mounted wheels, speed oil.

18N15263—No. 3010. For 110-120 volts AC-DC. Wt. 8 lbs. **23.37**

As above, but with 26 Mounted Whls. for industrial use. **23.37**

18N15264—No. 3011. Shipping weight 4 lbs.....

Deluxe outfit with 7 access.: 1/8" Collet; 5 Wheels; 1 Rubber Polishing Wheel; 1 Wheel Dressing Stone. Speed as above **17.42**

18N15354—No. 3008. Shpg. wt. 2 lbs.....

## FAIRCHILD FLEXIBLE SHAFT TOOL

2. The hobbyist's answer to engraving, buffing, grinding, routine polishing needs! Precision dynamically balanced 1/20 H.P. motor turns up 15,000 rpm at the handpiece — with power to spare when using any of the 10 standard tools supplied. Pencil-size hand-piece permits precision work of professional quality, and takes any standard 3/32" or 1/4" shank tool. Flexible shaft is full three feet long and covered with plastic for clean, oil-free operation. Every electrical component checked at factory with 1500 volts for breakdown to ground. Complete with selected accessory tools, two wrenches, flexible shaft, motor and bracket for motor.

18N15645—In Blond Wooden Cabinet. Wt. 7 lbs..... **15.95**

## POWER SPRAYER WITH 12 FOOT HOSE



Newest type of touch-up sprayer that operates from the spark plug of any automobile. Will spray paint, lacquer or any other free-flowing liquid. Comes complete with sprayer, pint glass jar, spark plug air checker valve, compression tank, set of adaptors and a twelve-foot hose.

18N14704—Shpg. wt. 6 lbs..... **4.70**

## NEW ELECTRIC MOTO-SAW



As safe to use as a hand saw—electrically operated—just guide it! Lightning-fast—makes 7200 strokes per minute—cuts 1 foot per minute through medium hard wood up to 3/4" thick! Saws sideways, back and forth. The only electrically-driven hand jig saw on the market today, and the most versatile tool in any workshop. Saws the most intricate patterns, cuts at any angle, works on assembled projects. Automatic switch in handle instantly stops, starts motor. For 50/60 cyc. AC. With cord and plug.

18N15352—Moto-Saw with 3 blades. Wt. 2 lbs. **5.85**  
18N15353—Extra blade for above..... 12 for 60c

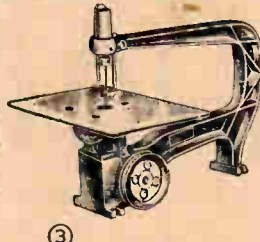
## MOTO TOOL



Newly designed this handy tool of a thousand uses will prove an asset to any service shop, home workshop or factory—for polishing, sharpening tools and knives, touching up machine parts and for writing in metals. Extremely lightweight, only 6 ounces, yet gives high speed (25,000 rpm) operation free from vibration. Readily accessible motor brushes are easily replaceable. Wrenchless collet for easy changing of tools. Chuck lock pin automatically disengages, preventing motor burn-out. Polished, shock-proof black bakelite, with chromium plated front and rear plates. 6 foot cord and plug. For 110 volt AC-DC.

18N15350—Shpg. wt. 1 lb..... **9.85**

Moto Tool Kit. Contains Moto-Tool listed above plus 23 of most commonly used accessories in sturdy hardwood case. **17.50**  
18N15351—Shpg. wt. 7 lbs.....



## SILVER PRINCE ALUMINUM JIG SAW

3. Highly-polished, rust-proof high tensile cast aluminum construction—lightweight—only one-third the weight of the usual cast-iron power tool. Includes many expensive machine features at a price you can easily afford: "Oilite" bronze bearings; roller bearing saw guide; built-in blower to keep sawdust off table and work; sturdy, accurate protractor to set or reset table to any desired angle quickly and easily. Blade may be turned to any angle for ripping. Has 14" throat and will cut work up to 2" thick on large work table measuring 9"x12". Operating speed 720 RPM (one stroke per revolution). Overall size: 15 1/2" high, 12" wide, 20" deep.

18N15736—Shipping weight 12 1/2 lbs..... **13.45**

## G.M. CO. ALL-STEEL HOBBY LATHE OUTFIT

4. A fine precision tool for precision work! Consists of 6 1/2" high lathe head with 1/2"x6 3/4" shaft accurately turned and threaded at both ends with two flanges and nuts for grindstones, buffing wheels and scratch brushes. 9/32" capacity chuck with 3 spring-controlled jaw hold drill in dead center. All steel unbreakable body with naval brass bearings for shaft. Complete outfit includes: 2-speed pulley; 4" flat face vitrified grinding wheel; 4" wire scratch brush with securely held wires; 4" laminated cotton buffing wheel; oak tanned leather belt complete with coupling; and one substantial block of high grade polishing compound.

18N22399—Red Enamel Finish. Shpg. wt. 6 lbs..... **3.75**

## AIR-PRESSURE TOUCH-UP SPRAYER

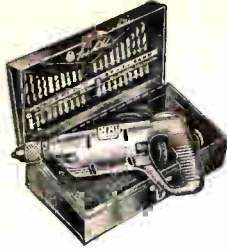


For touching up marred panels, cabinets, and radio chassis. Designed to operate perfectly with very low pressure from spare tires or any other air container. Comes complete with air-tight brass valve, adjustable brass spray tip, a length of rubber hose, and two 4-oz. glass jars. Inexpensive, easy-to-use.

18N14705—Shpg. wt. 3 lbs..... **1.17**

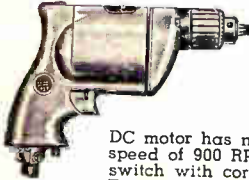


**FAIRCHILD ELECTRIC HAND DRILL KIT**



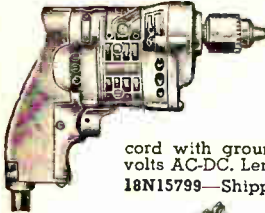
Kit contains 1/4" capacity drill with universal type 110-120 V. AC-DC motor. Free chuck speed 1100 rpm. Balanced saw grip handle puts "in line" pressure on drill for fewer breakages. Thumb control switch located on top of handle. Sturdy all metal case holds drill and is fitted with 20 "mechanics length" high grade steel twist drills, sizes up to 1/4". 10 for steel and iron, 10 for wood.  
 18N15765—Wt. 8 lbs. **19.95**  
 18N15766—Drill only...15.95

**BLACK & DECKER 1/4" BALL BEARING DRILL**

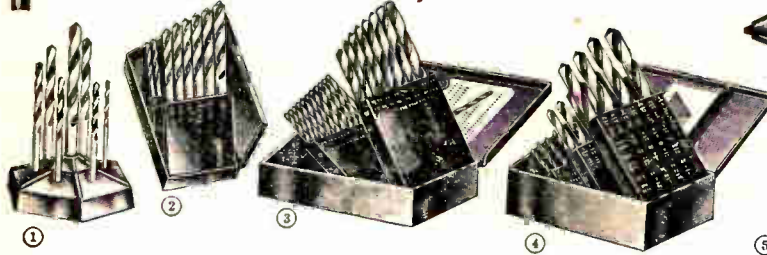


Pistol-grip drill with special ball spindle bearings, splined spindle gear mountings, ball-bearings, 12-tooth pinion gear and screened air vents. 3 jaw Jacobs threaded chuck, key handles drills up to 1/4". Steel capacity, 1/4" thick, hardwood 1/2". Universal AC-DC motor has no load speed of 1700 RPM, full-load speed of 900 RPM, 2-pole automatic release trigger switch with cord protector. 3 wire cable and plug. For 110 volts AC-DC. Spindle offset 3/4".  
 18N14707—Length 6 3/4". Shpg. wt. 4 1/4 lbs... **35.00**

**THOR 1/4" CAPACITY ELECTRIC DRILL**



Standard duty drill for continuous or off-and-on application. Sturdily constructed with ball bearings throughout. Has free speed of approximately between 1900 to 2000 RPM. 2-pole trigger switch in handle. Includes 3 conductor line cord with ground wire and plug for use on 115 volts AC-DC. Length 7 3/4".  
 18N15799—Shipping weight 3 lbs..... **35.50**



**CENTURY HIGH SPEED DRILL SETS**

1. SET NO. M-7. Contains 7 drills 1/8" to 1/2" by 32nds with red bakelite stand which serves as index with marked holes.  
 18N15760—Shpg. wt. 1/2 lb..... **2.20**
2. SET NO. M-3. 13 drills 1/8" to 1/4" by 64ths with Huot index. Smallest, but with the most often used sizes.  
 18N15761—Shpg. wt. 1/2 lb..... **4.05**
3. SET NO. M-2. Contains 21 drills 1/8" to 3/8" by 64ths with Huot index. Medium size Huot index, with the extended drill size range, adding those often needed drill sizes.  
 18N15762—Shpg. wt. 2 1/2 lbs..... **9.81**
4. SET NO. M-15. Contains 15 drills 1/8" to 1/2" by 32nds with Huot index. Large size Huot, with provisions for adding 14 drills of the 64th sizes. Most used larger sizes.  
 18N15763—Shpg. wt. 3 lbs..... **11.21**

**CENTURY HIGH SPEED DRILLS SOLD SEPARATELY**

No.	Size	Each	No.	Size	Each
18N15770	1/8"	19c	18N15780	3/8"	35c
18N15771	1/8"	19c	18N15781	1/2"	38c
18N15772	1/8"	20c	18N15782	1/2"	42c
18N15773	1/8"	21c	18N15783	1/2"	47c
18N15774	1/8"	23c	18N15784	1/2"	50c
18N15775	1/8"	24c	18N15785	1/2"	53c
18N15776	1/8"	26c	18N15786	1/2"	60c
18N15777	1/8"	28c	18N15787	1/2"	65c
18N15778	1/8"	30c	18N15788	1/2"	69c
18N15779	1/8"	32c	18N15789	3/8"	82c



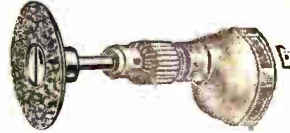
**HAND DRILLS—ELECTRIC OR MANUAL**

**GREENE SAW ATTACHMENT FOR HAND DRILLS**



Instantly converts your hand electric drill for sawing, filing, peening, riveting, or embossing. Just insert shaft into your drill chuck—needs no special skill to operate. Small and compact—can get into places where ordinary tool cannot easily reach. Case hardened parts—no gears or shafts to wear out. Uses broken hack saw blades. Works with any 1/4" electric drill.  
 18N15790—With Allen head wrench, blades. Wt. 3 lbs. **11.05**

**GREENE SAND CHUCK ATTACHMENT**

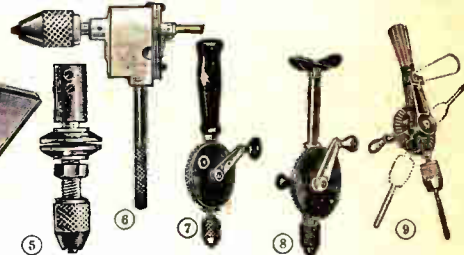


For use with any electric drill, flexible shaft or drill press having capacity of 1/4" or greater. Converts your power tool instantly into a sanding, grinding or polishing machine giving professional results at a low cost. Well made with case-hardened parts for long, hard wear.  
 18N15791—Chuck with two 3" sanding discs. Wt. 8 oz.... **1.55**  
 18N15792—Pkg. of 6 Coarse Sanding Discs.....  
 18N15793—Pkg. of 6 Medium Sanding Discs..... } **71c**  
 18N15794—Pkg. of 6 Fine Sanding Discs.....

**DRILL CHAMPION LIGHT DUTY DRILL**



New lightweight drill expressly designed for light duty or intermittent service. Extremely efficient motor with "Oilite" self-lubricating bearings and special alloy steel gears insure long satisfactory professional service. Streamlined features and recessed thumb control switch for instant on-off duty. Length 11 3/4".  
 18N15798—Shipping weight 4 pounds..... **25.00**



**CHUCK ARBORS TO FIT ANY SMALL MOTOR**

5. 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. Choice of four sizes.

No.	Unit No.	Motor Shaft	Cost
18N15095	495	1/4"	.75
18N15096	490	3/8"	1.05
18N15097	490-A	1/2"	.97
18N15098	490-B	3/8"	1.13

**GEARED CHUCK FOR SMALL ELECTRIC DRILLS**

6. 5 to 1 geared chuck for drill sizes up to 1/2-in.  
 18N14698—Shpg. wt. 4 lbs..... **7.88**

**STANDARD HAND DRILL WITH HARDWOOD HANDLE**

7. 3 1/2" gear wheel meshed with small gear at 4:1 ratio. 1/4" capacity chuck with 3 spring-centered centered jaws.  
 18N14727—Overall length 11". Shpg. wt. 1 1/2 lbs..... **1.45**

**BREAST DRILL WITH 3/8" CAPACITY CHUCK**

8. 12 1/2" long, full-size breast plate and 3 1/2" gear meshed with small gears at 4:1 ratio. Includes 3/8" capacity chuck.  
 18N14726—Shipping weight 2 lbs..... **2.25**

**SWIVEL HEAD HAND DRILL WITH FLAT HUB BASE**

9. Works around corners! Chuck head adjusts, locks to 7 positions, handle adjusts, locks along 180° base, 1/4" chuck.  
 18N14724—Overall length 8 1/2". Shpg. wt. 2 lbs..... **2.96**

**DRILL CASE**

10. Metal case, tap drill index numbered 1 to 60. Cover lifts drills for selection.  
 18N14702 ..... **2.45**

**STEEL DRILL SET**

11. 9 drills, sizes 1/8" to 1/2". Expertly ground cutting steel. In strong hardwood box.  
 18N14708 ..... **1.29**

**DRILL-DIE SET**

12. 3 dies and tap stock, taps, matching tap drills for 4/32, 6/32, 8/32". With case.  
 18N14954 ..... **2.25**



# QUICK-HEATING SOLDERING IRONS

## UNGAR ELECTRIC SOLDERING PENCIL



Unusually small, lightweight and easy to operate soldering iron. So tiny it can be handled as easily as a pencil! Efficient, well-constructed, for perfect soldering jobs. Weight is only 3.6 ounces, and its overall length is no more than seven inches with tip.

Recommended for use in tight corners, hard-to-reach places. Can be employed in everything from the most delicate work to some of the larger soldering tasks. This new soldering pencil draws 20 watts and heats in 90 seconds. Sturdily made with a handle of heat-resistant plastic. Comes equipped with line cord and plug, ready for use. Operates on 110 volts AC or DC. Underwriter's Laboratories approved. Uses any tip listed below.

18N15575—Soldering pencil, less tip. Shpg. wt. 6 oz.....	} Each <b>78c</b>
18N15576—(A) Standard Copper, tip only.....	
18N15577—(B) Elkaloy A, Extra Hot, Tip only.....	
18N15578—(C) Elkaloy A, Chisel, Tip only.....	
18N15579—(D) Elkaloy D, Pencil, Tip only.....	
18N15580—(E) Brass Marking, Tip only.....	

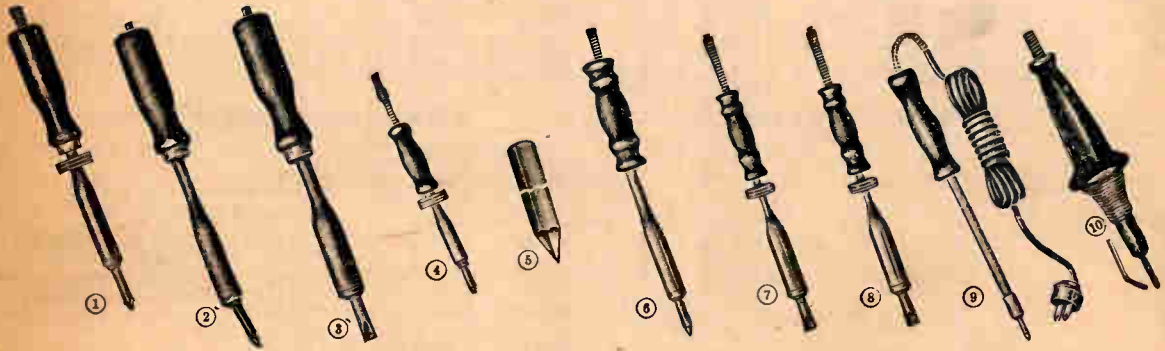


## WELLER SPEED IRON NEW SOLDERING TOOL

- No Waiting—Heats, Cools in 5 Seconds
- Easy to Handle—Gets Into Tight Corners
- New, Pistol-Type Grip Is Easy to Hold
- Built-In Spotlight Lights Up Your Work
- Tips Are Easy to Tin—Always Stay Tinned

The first really new idea in soldering tools. Operates on the resistance welder principle giving high current at extremely low voltage. No more waiting for iron to heat up—merely pull the trigger when it's time to solder. No more working at arm's length—new type pistol grip gets you in close with a "feel" impossible to attain with conventional type irons. No bulky tip—no working in dark—spotlight lets you see where you are working. Tips stay tinned, solder easily, bend by hand. 100 watts on 115 V. 60 cyc. AC.

18N15183—Shpg. wt. 3 lbs.....	<b>12.69</b>
As above, with dual heat unit (100-135 W).....	<b>14.65</b>
18N15186—Shpg. wt. 3 lbs.....	<b>14.65</b>
18N15181—Extra Long Life Tip. Wt. 2 oz.....	<b>6 for 50c</b>



## DRAKE INDUSTRIAL IRONS — UNDERWRITERS LISTED

1. 100 WATT IRON No. 600-10. For switchboards, radio and other light manufacturing uses. Ideal for close quarters. Comes complete with 6 foot cord, stand. 3/8-in. tip. **4.12**  
18N15164—Shpg. wt. 2 lbs.....  
18N15152—Replacement Tip for Above.....39c
2. 100 WATT IRON No. 600 for light manufacturing purposes. Complete with 6 ft. cord, "Magic Cup" stand. 3/8-in. tip. **3.82**  
18N15551—Shpg. wt. 2 lbs.....  
18N15152—Replacement Tip for Above.....39c
3. 200 WATT IRON No. 800. For general factory soldering, art glass, medium tin work, autos, lamp wiring, or home repairs. Complete with 6-ft. cord, stand. 3/8" tip. **5.29**  
18N15550—Shpg. wt. 3 lbs.....  
18N15153—Replacement Tip for Above.....63c
4. 60 WATT COMPACT IRON No. 400. A small tool for tight corners, delicate instrument wiring. 9-inches long, weighs 9 oz. With 6-ft. cord, "Magic Cup" stand. 1/4" tip. **2.91**  
18N14835—Compact Iron. Shpg. wt. 1 lb.....  
18N15157—Replacement Tip for Above.....32c

5. REPLACEMENT TIPS. Plunger type of quality copper.

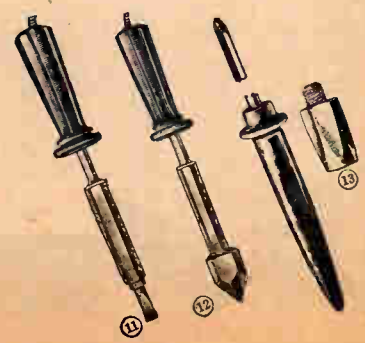
No.	Iron	Size	Each
18N15167	25-40 watts	1/4 x 27/8"	25c
18N15166	60-75 watts	3/8 x 27/8"	27c
18N14903	85-100 watts	3/8 x 4 1/2"	21c
18N15168	115-150 watts	1/2 x 3 1/4"	32c

## DRAKE DELUXE SOLDERING IRONS

6. 100 WATT IRON No. 325. For general radio work. High quality Nichrome wire on amber mica. Nickel plated. Complete with 6 ft. cord, plug, "Magic Cup" stand. 3/8-in. tip. **2.76**  
18N15162—Shpg. wt. 1 1/2 lbs.....  
18N15152—Replacement Tip for Above.....39c
7. 125 WATT IRON No. 326. Extra hot. Quality Nichrome wire on amber mica. 6-ft. cord, plug, stand. 3/8-in. tip. **3.23**  
18N15163—Shpg. wt. 2 lbs.....  
18N15152—Replacement Tip for Above.....39c
8. 200 WATT IRON No. 425. For medium heavy work. Highest quality Nichrome wire on amber mica. Nickel plated. Complete with 6-ft. cord, "Magic Cup" stand. 3/8-in. tip. **5.29**  
18N15552—Shpg. wt. 2 lbs.....  
18N15153—Replacement Tip for Above.....63c
9. SPECIAL IRONS. Resistance wire on porcelain tubes.  
18N14892—60-Watt, Type 315 with cord, plug. Wt. 1 lb.....**1.00**  
18N15158—Replacement Tip for Above.....39c  
18N14893—100-Watt, Type 316 with cord, plug. Wt. 1 lb.....**1.73**  
18N15159—Replacement Tip for Above.....59c
10. 35 WATT MIDGET IRON No. 350—Only 6 1/2-inches long. Element wound on mica-insulated steel core as in industrial irons. Straight 1/8" tip, bent 1/8" tip and stand. **2.06**  
18N15177—35 Watt Iron. Shpg. wt. 0 lbs.....  
18N15178—Replacement Straight Tip.....8c  
18N15179—Replacement 45° Tip.....8c

## KWIKHEAT, KOPPERKORE SOLDERING IRONS AND ACCESSORIES

11. KWIKHEAT 225 WATT soldering iron heats up in 90 seconds. Sturdy, long-lasting. Built-in thermostat, cool handle. Use with tips 0, 1, 2, 3, 4, 5, 6, 9 and Kordless Receptacle. With No. 6 tip, resting stand. 100-125 v. AC. **10.87**  
18N15119—Each.....  
Each, lots of 3.....9.68  
Extra No. 6 Tip.....1.32  
18N15113—Each.....  
Each, Lots of 3.....1.17
12. KWIKHEAT 450 WATT — same features as 225 watt. Use with tips 0, 1, 2, 3, 4, 5, 6, 9, and Kordless Receptacle. With No. 6 tip, resting stand. 100-125 v. AC. **10.87**  
18N15119—Each.....  
Each, lots of 3.....9.68  
Extra No. 6 Tip.....1.32  
18N15113—Each.....  
Each, Lots of 3.....1.17
13. KORDLESS KOPPER set — a three-piece accessory for Kwikheat 225W or 450W soldering irons. To use, just replace tip of iron with Kordless receptacle, and slip the 1/4" diameter Kordless tip into receptacle to heat up. **1.88**  
18N15160. Each.....  
Lots of 3, Each.....1.61



## KWIKHEAT INTERCHANGEABLE TIPS

- |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 9 |
|---|---|---|---|---|---|---|---|
- No. 5 is aluminum. Others are forged Tellurium.  
 18N15122—No. 0.....  
 18N15123—No. 1.....  
 18N15124—No. 2.....  
 18N15125—No. 3.....  
 Any above.....Each 94c  
 Each, in Lots of 3.....83c





**LENK GUN GRIP  
NEW TYPE IRON**

- Versatile — Solders in Any Position
- Spring Construction Protects Unit
- Pressure Cushioned for Delicate Work
- Gun-Grip Handles Always Remain Cool
- 4 Tips: Straight, 45°, 90°, Heavy Duty

A new, all-purpose soldering iron that appeals to the skilled mechanic, the novice, and the hobbyist alike. The ideal tool for all soldering uses—perfectly balanced—lightweight, easy to handle—can be employed in tight corners, hard-to-reach places. Spring construction serves a four-fold purpose—(1) cushions pressure for delicate work; (2) protects handle and unit; (3) keeps Gun-Grip handle always cool; (4) insures perfect soldering at all times. Built-in stand rests iron safely on work table—prevents scorching. Contains long-life element. Chrome plated over nickel and copper. With 4 special tips—one for heavy duty work. Draws 75 watts, operates on 110-120 volts AC-DC. Overall size: 9½" x 4¾".

18N15101—With 6-ft. cord and plug. Ship. wt. 1 lb... **3.26**  
18N15102—Heavier duty model—125 watts. Wt. 2 lb... **3.92**

**ESICO SOLDER POTS—200 and 325-Watts**



**200-WATT SOLDER POT** equipped with pilot light that indicates when pot is heating. Sturdily constructed but not top heavy. May be screwed to benches. Capacity ¾ lb. 1½" x 1½". Height 4¾".  
18N15554—Shpg. wt. 3¾ lbs..... **4.41**

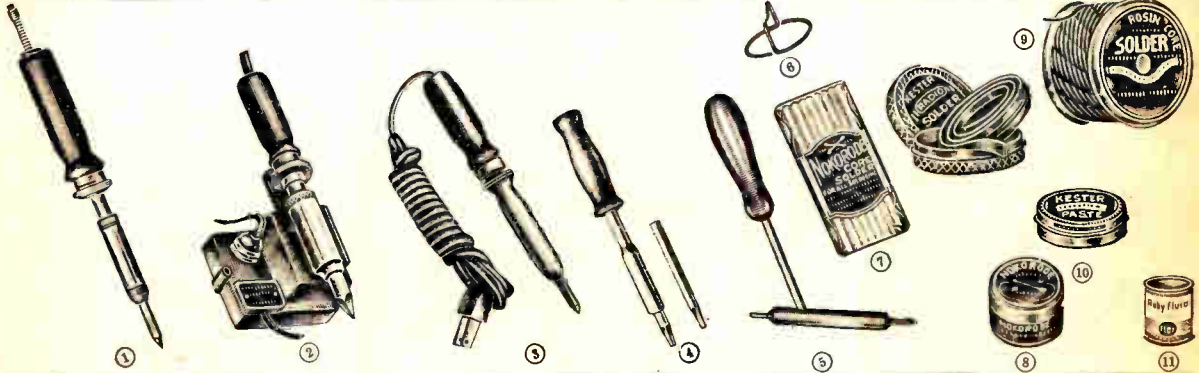


**325-WATT SOLDER POT** with same features as above. Screws on bench—can't be knocked over. Has a capacity of 3¾ lbs. 3½" x 1½". Overall height 4¾".  
18N15555—Shpg. wt. 5 lbs..... **6.37**

**ESICO THERMOSTATIC STAND**



Thermostatic control stand makes it impossible to overheat iron. Keeps iron at desired heat while in stand. When removed, full current goes on. For up to 1" diameter tips.  
18N14885—Shpg. wt. 3 lbs..... **3.82**



**SOLDERING IRONS, ACCESSORIES, SOLDER AND PASTE**

**1. AMERICAN BEAUTY 100-WATT iron #3138.** America's most famous iron for those who want the very best! Metal parts heavy plated, polished. Length 12¾". 3/8" tip.  
18N15171—With 6-ft. cord and stand. Wt. 2 lbs..... **5.36**  
18N15170—Extra tip for above..... **34c**

**AMERICAN BEAUTY 60-WATT IRON #3128.** Designed for lighter work. Chrome nickel element. ¼" tip. Length 12¼".  
18N15196—With 6-ft. cord and stand. Wt. 1 lb..... **3.34**  
18N15197—Extra tip for above..... **27c**

**2. AMERICAN BEAUTY THERMOSTATIC CONTROL stand.** Adjustable thermostat regulates temperature of soldering irons. Molded plastic body. Operates on 110 volts AC current. Comes complete with cord, plug, receptacle for iron.  
18N15169—Shpg. wt. 3 lbs..... **3.88**

**3. VASCO PETITE IRON.** Compact, lightweight soldering iron designed for light wiring, tight corners, and those really hard-to-get-at-places. Draws 25 watts, 1/8" diameter tip. Length 6". Complete with cord and plug.  
18N14836—Shpg. wt. 3½ oz..... **2.35**

**4. ESICO IRONS with high grade elements, finest mica insulation.** U. L. listed. For AC or DC. With cord, stand, tips.  
**Soldering Irons**  
18N14900—60 watts, 3/8" tip..... **1.73**  
18N14902—100 watts, 3/8" tip..... **2.32**  
18N14905—130 watts, ½" tip..... **2.91**  
**Extra Tips**  
18N14901..... **21c**  
18N14903..... **21c**  
18N15168..... **32c**

**5. KELNOR 125 WATT IRON.** Extendable virgin copper tip through center of barrel—adjustable, longer, shorter. For delicate radio or telephone work. Weighs only 9 oz.  
18N15111—With cord and plug. Shpg. wt. 1 lb..... **3.89**  
18N15112—Extra virgin-copper tip..... **29c**

**6. ECONOMY REST for lightweight iron, other tools.**  
18N15199—Iron Rest, Rust-Proof Wire..... **15c**

**7. NOKORODE CORE SOLDER of 30% tin and 70% lead.** A superior paste used for flux. Non-corrosive. No. 10 gauge.  
18N14882—Approx. 1½ oz..... **8c**

**8. NOKORODE PASTE—non-corrosive, fluxes all metals except aluminum** without corroding or discoloring. Insures perfect soldered joint at extremely economical cost.  
18N15277—Per can..... **10c**

**9. KESTER SOLDER.** Preferred by servicemen and large users. Won't spatter. Flux in core.  

	Rosin Core	Acid Core 3/8"	Rosin 1/4"
Per Tin	18N14857.. 17c	18N14878.. 17c	Thin-Core
1 lb. Spool—	18N14858.. 1.04	18N14877.. 1.04	18N14851.. 1.07
5 lb. Spool—	18N14859.. 5.00	18N14879.. 5.00	18N14852.. 5.15

**10. KESTER PASTE FLUX.** Non-corrosive. 2-oz. can.  
18N15278—Kester Paste. Shpg. wt. 3 oz..... **12c**

**11. 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..... **18c**



**UNGAR SOLDERING SET**

Ideal for hobby work. Includes soldering pencil, 3 tips, flux and brush, core solder, emery cloth. U. L. approved.  
18N15583—Wt. 6 oz..... **2.19**  
Lots of 6, Each..... **1.66**



**HARMIC SOLDERING KIT**

Contains U.L. appvd. chrome-plated 75-watt soldering iron, steel scraper, spool of rosin core solder, stand, sandpaper. Instructions.  
18N14834—Shpg. wt. 3 lbs. **1.35**



**LENK ALCOHOL, GASOLINE TORCHES FOR SERVICEMEN, HOME MECHANICS**

**A. GASOLINE TORCH.** Flame control and shut-off valve. Polished brass body. ¾ pint capacity. Height 7½". Base 3" dia.  
18N14855—Wt. 2 lbs..... **1.96**  
Alcohol torch, features above.  
18N14856—Wt. 2 lbs..... **2.12**

**B. DOUBLE BURNER TORCH.** Broad or needle point flame. Alcohol fuel. Includes cleansing pin in handle. Copper heat conductor in pressure chamber assures quick starting. 7" x 4¼" x 2½".  
18N14867—Shpg. wt. 3 lbs **2.93**

**C. COMPACT ALCOHOL TORCH** for servicemen, home-mechanics. Uses denatured or comm. alcohol. Leak-proof, non-clogging. Double-barrel, self-blowing type. Screw-top, bottom. 6" x 2" x 1¼".  
18N14866—Shpg. wt. 1 lb **1.14**



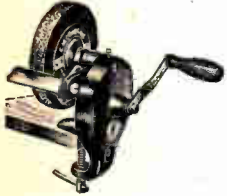
# HANDY MISCELLANEOUS TOOLS



## 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 in the bottom of chassis without endangering tubes. Stands on table or work bench. Adjustable for any size of chassis or changer. Complete with standard clamps for grasping vertical surfaces of the chassis or record changer. Groove in each clamp accommodates the flanged-in bottom edge of the chassis. **3.87**  
18N15085—Shpg. wt. 3 lbs.....

## G.M. CO. BENCH GRINDER WITH 5" STONE



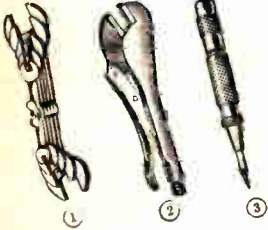
Accurately made and assembled grinder with fine electric furnace abrasive wheel. Dirt-proof gear case with extra long bearings assure gears being in alignment and wheel running true. All gears properly machined and meshed. Smooth-running grinder clamps on any table or bench. Adjustable tool rest for added ease in sharpening. Baked Red enamel finish. With 5" stone. **2.79**  
18N15356—Shpg. wt. 4 lbs.....

## MODELMAKERS VISE WITH 1 1/2" JAWS



Double parallel beams keeps jaws aligned—prevents wobbling, insures steadiness of implement in the vise. Finer threaded worm screw provides tighter grip, more holding surface per inch. 1 1/2" jaws open to full 2 1/4". Equipped with double mountings for permanent or temporary attachment to any bench or table—edges not exceeding 2 1/8" thick. Rust-resistant Bronze finish. Size fully closed: 5 3/4 x 4 x 2". **1.51**  
18N15735—Shpg. wt. 3 lbs.....  
18N15734—Shpg. wt. 4 lbs..... **2.55**

## 5-PIECE WRENCH SET



1. New Sampson small open-end wrench set 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 strength. 1/4 to 7/8 sizes—marked on shank. **1.15**  
18N14987—Ship. wt. 1 lb.

## NEW! REPLOGLE DRAFTING MACHINE



Cuts drafting time by one-third! Eliminates use of T-square, protractor, and triangles. Makes sharp, accurate drawings up to 16" x 22". Combination 90° angle, calibrated scale moves at any angle to any point on the masonite board. Includes 17 1/2 x 23 1/2 x 1/4" board, steel arms, fittings, rubber feet. **6.63**  
18N15092—Shpg. wt. 8 lbs.....

## XCELITE NUT DRIVERS—STURDY, SHOCKPROOF

Time-saving spin-type wrenches meet every need! Unbreakable—transparent amber handles insulated against 5000 volts, extra-deep sockets for long studs. 6" long.  
18N15330....for 3/8" hex nut.  
18N15328....for 1/2" hex nut.  
18N15331....for 3/4" hex nut.  
18N15327....for 7/8" hex nut.  
18N15332....for 1" hex nut.  
18N15333....for 1 1/8" hex nut.  
18N15334....for 3/8" hex nut.  
Any Above, each..... **45c**

18N15335....for 7/8" hex nut.  
18N15336....for 1" hex nut.  
Any Above, Each..... **57c**

### Hollow Shaft Type

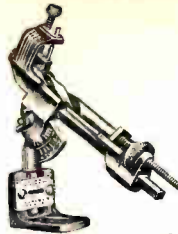
Extra-long hollow shaft. For installing and removing volume controls and other panel equipment. Permits removal of nuts from volume controls with up to 5" shafts. Ideal for nuts blocked by bolts or studs.  
18N15344—for 1/2" hex nut. **75c**  
18N15329—for 1 1/8" hex nut. **78c**

## XCELITE SUPER DELUX NUT DRIVER SET



Handy new nut driver set with handsome red wrinkle finish metal stand. Wrenches have new design handles of transparent amber—larger, easier to grip. Blades double heat treated, highly polished. Seven nut drivers similar to those at left above. **3.79**  
18N15341—Shpg. wt. 8 lbs.....

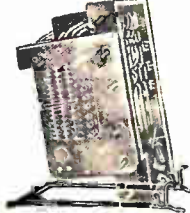
## GENERAL DRILL GRINDING ATTACHMENT



New! Precision-built tool designed for accurate repointing of twist drills. Makes it possible for the mechanic and craftsman to resharpen drills to factory accuracy for whatever angle his work requires. Adjustable for all popular drill point angles, including countersinks—correctly resharpens twist drills of following sizes: 1/8" to 3/4" fractional; 1 to 30 number size; A to Z letter size; and 3.0 to 19.0 millimeter size.

Never before a tool of such precision construction, design, so moderate in price! Silver lustré finish. **4.75**  
18N15759—Shpg. wt. 2 lbs.....

## G-C CHASS-EZ RADIO CHASSIS HOLDER



New wonder tool for every service bench! Eliminates big, awkward holders and boxes to hold the radio chassis—does the job simply and easily with special reversible hooks on one end to handle the flanged type chassis, and tilt it back if necessary. Holds tubes and undersides of chassis open. Slide adjustment compensates for chassis width and clears any obstruction on inside edge of radio chassis. **1.91**  
18N15081—Shpg. wt. 2 lbs.....

## G-C RADIO CHASSIS JACKS



A practical tool for the radio bench that pays its own way! Eliminates propping up chassis with boxes, odds and ends. Chassis jacks are adjustable to fit any set, under any conditions, save time and bother rearranging props. All metal parts, small, compact. Every serviceman should own at least two pair of these time-savers. **1.15**  
18N15084—Wt. 2 lbs. Pair..

## SAMSON LEVER WRENCH

2. 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 turn of set screw. Double leverage multiplies pressure 1000 times. **1.25**  
18N14986—Ship. wt. 2 lbs.

## AUTOMATIC PUNCH

3. Speedy, automatic, and adjustable—a single-hand operated punch gives light or heavy impressions with just the turn of a screw. Center punch has replaceable points. 1/2" x 5". **2.55**  
18N14991.....  
Steel replacement point. **23c**  
18N14992.....

## FEATHERWEIGHT TACKER AND STAPLER



Quick, convenient tacker for attaching light wire or spaghetti, labels, etc.; tacking on grille cloth or stapling papers, receipts, checks, etc. Precision-built—steel body with fine Black finish. **1.60**  
18N15280.....  
18N15281—Box of 1000 staples.... **35c**  
SAVE MORE! 10,000 staples..... **2.90**

## NEW UNION PERSONAL FILE CHEST



Indispensable as a safe place to keep insurance papers, leases, contracts, correspondence, and other private or business papers, with systematic, time-saving, ready reference for instant use. Sturdily made of fire-resistant steel equipped with spill-proof lock and two keys. Convenient, strongly-made carrying handle with built-in identification card-holder. Comes with 10 Alphabetical A to Z dividers, 7 Budget Folders and 3 plain folders. Gray enamel finish. 12 1/2 x 10 1/4 x 5 1/2" **2.65**  
18N22352—Shpg. wt. 4 lbs.....

## 4-DRAWER ALL STEEL CABINET



Attractive, impressive, practical in design. Embossed cabinets fit securely when stacked in multiple units. Drawers are 8 x 10 1/4 x 1 1/4", each with card holder and removable partitions to furnish 2 to 12 compartments per drawer. Constructed of heavy gauge steel with no sharp edges. 7 1/2 x 8 1/2 x 10 1/4. Brown. **5.25**  
18N22351—Shpg. wt. 9 lbs.....



## PUSH BACK WIRE

### SOLID TINNED COPPER CORE TYPE

No stripping is necessary. Just push back the double cotton-covered moisture-proof braid No. 20 wire. Four colors for circuit identification. Weight 2 lbs. per 100 ft.



25-Foot Coils  
 19N16350-Red 19N16352-Black  
 19N16351-Grn. 19N16353-Yel.  
 Your Cost (10 for \$2.25),  
 Per Coil ..... **24c**

50-Foot Coils  
 19N16358-Red 19N16360-Black  
 19N16359-Grn. 19N16361-Yel.  
 Your Cost (10 for \$4.23),  
 Per Coil ..... **47c**

100-Foot Coils  
 19N16366-Red 19N16368-Black  
 19N16367-Grn. 19N16369-Yel.  
 Your Cost (10 for \$8.19),  
 Per Coil ..... **91c**

1000-Foot Spools  
 19N16374-Red 19N16376-Black  
 19N16375-Grn. 19N16377-Yel.  
 Your Cost, Per Spool.....\$6.95

### COLORED RUBBER WIRE

Stranded and tinned 18 gauge copper wire covered with a live rubber compound. Very flexible; easy to strip. Solders instantly. Available in three colors.



25-Foot Coils  
 19N16272-Red } Your cost ea.  
 19N16273-Black } 5 for  
 19N16274-Green } \$1.00 **22c**

1000-Foot Spools  
 19N16108-Red } Your cost ea.  
 19N16109-Black }  
 19N16110-Green } **\$7.85**

No. 16 RUBBER COVERED  
 19N16280-Black 19N16281-Red  
 50 Ft. 100 Ft. 500 Ft.  
 Your Cost 62c \$1.18 \$5.49

Stranded No. 14 Gauge  
 19N16121-Black 19N16120-Red  
 25 Ft. 50 Ft. 100 Ft.  
 Your Cost: 55c \$1.05 \$1.99

Stranded No. 12 Gauge  
 19N16122-Black 19N16123-Red  
 25 Ft. 50 Ft. 100 Ft.  
 Your Cost 72c \$1.39 \$2.65

### MULTI-CONDUCTOR CABLE



A high grade, heavily insulated cable. Each lead has a different colored rubber jacket for easy identification. 18 gauge, stranded tinned copper wire. Cotton braid overall.

No.	Wires Per Ft.	100 Ft.
19N16089	3 4c	\$3.60
19N16090	4 5c	4.50
19N16091	5 6c	5.40
19N16092	6 7c	6.30
19N16093	7 8c	7.20
19N16094	8 9c	8.10
19N16095	9 10c	9.00
19N16096	10 11c	9.90

### GIANT SLEEVING



No. 2 Spaghetti I.D. 1/2"; 36" long. High Voltage oil varnish impregnation. Black only.  
 19N15956-10 For 1.35  
 Per Length..... **15c**

### STRANDED TINNED COPPER CORE TYPE

Very flexible wire of multi-strand tinned copper; equivalent to No. 20. Cotton braid pushes back easily. Available in 4 colors. Weight, 2 lbs. per 100 feet.

25-Foot Coils  
 19N16354-Red 19N16356-Black  
 19N16355-Grn. 19N16357-Yel.  
 Your Cost (10 for \$2.43),  
 Per Coil ..... **27c**

50-Foot Coils  
 19N16362-Red 19N16364-Black  
 19N16363-Grn. 19N16365-Yel.  
 Your Cost (10 for \$4.68),  
 Per Coil ..... **52c**

100-Foot Coils  
 19N16370-Red 19N16372-Black  
 19N16371-Grn. 19N16373-Yel.  
 Your Cost (10 for \$8.91),  
 Per Coil ..... **99c**

1000-Foot Spools  
 19N16378-Red 19N16380-Black  
 19N16379-Grn. 19N16381-Yel.  
 Your Cost, Per Spool.....\$7.95

### COPPER BUS BAR

Round tinned copper bus bar No. 14-24" lengths.  
 19N15955-10 lgths. 100 lgths.  
 Your Cost.....19c **\$1.80**

### No. 14 TINNED SOLID COPPER PUSH-BACK WIRE



Designed for heavy-duty work in power amplifiers, transmitters, etc. Cotton wrapper with heavy lacquer insulating material and final layer of impregnated cotton braid. High breakdown voltage.

25-Foot Coils  
 19N16341-Black 19N16339-Red  
 Your Cost,  
 Per Coil..... **46c**

100-Foot Coils  
 19N16348-Black 19N16346-Red  
 Your Cost,  
 Per Coil..... **\$1.83**

### BELL WIRE

Excellent grade No. 18.  
 19N16338-1/2 lb. roll.  
 Your Cost.....38c  
 19N16051-25 ft. roll. Your Cost..... **15c**



### EXTRUDED PLASTIC TUBING



10,000 V. di-electric strength. Will not support combustion. Resistant to petroleum solvents, acid, alkalis and soldering temperatures. All are 3-foot lengths.

Size No. 16 10 For  
 19N16186-Black } 5c Ea. **45c**  
 19N16187-Yellow }

Size No. 12  
 19N16188-Black } 6c Ea. 10 For  
 19N16189-Red } **53c**  
 19N16190-Yellow }  
 19N16191-Green }

Size No. 8 10 For  
 19N16192-Black } 8c ea. **72c**  
 19N16193 Yellow }

### SPAGHETTI TUBING



Highest grade cambric tubing. Red, yellow, green and black. No. 12.  
 19N15960-Specify Color  
 Per 30-Inch Length..... **7c**  
 Your Cost 10 Lengths..... 68c

## HOOK-UP AND MAGNET WIRE — SPAGHETTI

### RESISTANCE WIRE ON HANDY SIZE SPOOLS



High grade resistance wire in small quantities for use in highly sensitive instruments where accurately determined resistance values, secured through the employment of a high grade alloy wire, are necessary.

Wire Gauge	Ohms Per Ft.	Enameled		Bare		Your Cost Each. Any Spool
		Stock No.	Ft. In. Spool	Stock No.	Ft. In. Spool	
14	.04603	19N16600	20	19N16614	24	<b>39c</b>
16	.07318	19N16601	31	19N16615	38	
18	.1164	19N16602	40	19N16616	46	
20	.1850	19N16603	57	19N16617	81	
22	.2941	19N16604	77	19N16618	126	
24	.4678	19N16605	104	19N16619	190	
26	.7438	19N16606	141	19N16620	277	
28	1.183	19N16607	160	19N16621	399	
30	1.879	19N16608	182	19N16622	560	
32	2.990	19N16609	205	19N16623	765	
34	4.756	19N16610	230	19N16624	1092	
36	7.560	19N16611	253	19N16625	1482	
38	12.02	19N16612	279	19N16626	1881	
40	19.11	19N16613	309	19N16627	2308	

### FINEST GRADE MAGNET WIRE



Highest quality copper wire. Excellent for rewinding power transformers and chokes, winding coils or any other radio and electrical purpose. Ideal for use in shops, schools, laboratories, etc.

#### Double Silk Covered

Stock No.	Size B&S	Ft. Per Spool	Your Cost
19N20962	18	199	\$0.43
19N20963	20	314	.47
19N20964	22	494	.50
19N20965	24	778	.53
19N20966	26	1220	.62
19N20967	28	1910	.73
19N20968	30	2960	.87
19N20969	32	4570	1.10
19N20970	34	6980	1.47
19N20971	36	10500	2.03

#### Double Cotton

Stock No.	Size B&S	Ft. Per Spool	Your Cost
19N20950	16	125	\$0.23
19N20951	18	202	.23
19N20952	20	319	.25
19N20953	22	506	.25
19N20954	24	804	.27
19N20955	26	1280	.30
19N20956	28	2030	.33
19N20957	30	3220	.36
19N20958	32	5100	.41
19N20959	34	8080	.46
19N20960	36	12800	.59
19N20961	38	20300	.78
19N20972	18	122	\$0.27
19N20973	18	192	.27
19N20974	20	298	.30
19N20975	22	464	.37
19N20976	22	711	.43
19N20977	24	1080	.46
19N20978	26	1630	.55
19N20979	28	2420	.60
19N20980	30	3500	.80
19N20981	32	4920	.98
19N20982	34	6660	1.27
19N20983	36	10500	1.72

### HIGH GRADE MAGNET WIRE ON HANDY SIZE SPOOLS

Economical sized spools of high grade magnet wire for those desiring less than 1/4 lb. All spools are plainly marked with the length of wire contained on the spool as well as the size. Available in double cotton, double silk and enameled insulation.



Ga.	Double Cotton		Double Silk		Enameled		Your Cost Each. Any Spool
	Stock No.	Ft. In. Spool	Stock No.	Ft. In. Spool	Stock No.	Ft. In. Spool	
14	19N16500	21	19N16514	19	19N16528	25	<b>24c</b>
16	19N16501	33	19N16515	25	19N16529	40	
18	19N16502	42	19N16516	31	19N16530	48	
20	19N16503	60	19N16517	42	19N16531	85	
22	19N16504	81	19N16518	60	19N16532	133	
24	19N16505	110	19N16519	83	19N16533	200	
26	19N16506	148	19N16520	101	19N16534	292	
28	19N16507	168	19N16521	119	19N16535	420	
30	19N16508	192	19N16522	141	19N16536	590	
32	19N16509	216	19N16523	163	19N16537	805	
34	19N16510	242	19N16524	190	19N16538	1150	
36	19N16511	266	19N16525	219	19N16539	1560	
38	19N16512	294	19N16526	243	19N16540	1980	
40	19N16513	325	19N16527	275	19N16541	2430	

### SPAGHETTI ON SPOOLS

High grade varnished cambric tubing. 5000 V. di-electric strength. On fibre spools, 8 and 12-yard lengths.

For No. 12 wire, in 8-yard lengths:  
 19N15951-Red 19N15952-Green 19N15954-Yellow  
 19N15955-Black

For No. 14 wire, in 8-yard lengths:  
 19N15750-Red 19N15752-Green 19N15751-Yellow  
 19N15753-Black

For No. 18 wire, in 12-yard lengths: 19N15754-Black  
 Any of Above Sizes,  
 Your Cost, Per Spool..... **67c**







8216

## TRANSMISSION LINE CABLES

8216: 72 ohm coax. Puncturing voltage 30,000. No. 14, 19 No. 27 tinned; low-loss rubber ins., tinned copper braid, rubber overall; .460" OD. 37 mm/ft., VP 56%, atten./C' .51 db at 1 mc, 2.9 db at 10 mc.

19N20859—Bulk. Cost per ft. .15c  
19N20937—50 ft. spool. 5.88  
19N20936—250 ft. spool. 29.40



8204

8204: 72 ohm twisted pair. No. 18, 7 No. 26 tinned; cotton wrap, rubber ins. Cabled with weather-resistant cotton braid overall; .190" O.D. 21 mm/ft. VP 61% Atten./C' .53 db at 1 mc, 12.3 db at 100 mc.

19N20860—Bulk. Cost per ft. .035  
19N16174—500 ft. spool. 13.75



8209

8209: 72 ohm shielded twisted pair, conductors and outer cotton like 8204, but cabling includes paper wrap and tinned copper braid; .235" OD .32 mm/ft. between conductors, VP 57%, Atten./C' 1.1 db at 1 mc, 14.9 db at 100 mc.

19N20861—Bulk. Cost per ft. .07  
19N16162—500 ft. spool. 26.46



8205

8205: Twisted pair. No. 22, 7 No. 30 tinned, rubber ins. Cabled with weather-resistant cotton braid; .175" OD.

19N20862—Bulk. Cost per ft. .025  
19N16171—500 ft. spool. 8.67



8452

## RUBBER JACKETED PORTABLE CORD

No. 18, 41 No. 34 bare copper; cotton wrap, 1/4" rubber ins. Cabled with fillers, cotton wrap, 1/4" rubber overall.

Mfr's No.	Stock No.	Stock No.	Cost	Stock No.	Cost
8452	2-245"	19N20910	.05	19N20909	3.67
8453	3-275"	19N20880	.07	19N20879	3.33
8454	4-265"	19N20881	.08	19N20882	4.02



8453

## SHIELDED AUTO & AIRCRAFT RADIO WIRE

8664: No. 28 solid tinned steel, yarn braid, polyethylene ins., tinned copper braid, vinyl cover; .260" OD, 15 mm/ft. 19N20863—Bulk. Cost per ft. .08  
19N20884—100 ft. spool. 6.03  
Flex. stranded tinned copper, cellophane wrap, rubber ins., lacquered cotton braid, tinned copper braid. .170", .195", .225" OD.

Mfr's No.	Gauge	Bulk No.	Cost	100 ft. spool No.	Cost
8656	No. 16	19N16219	.06	19N20864	3.97
8655	No. 14	19N16218	.07	19N20865	4.36
8654	No. 12	19N16223	.07	19N20866	5.88



8664



8656



8799

## INTERCOM AND P. A. CABLE

8799: Twisted pair, No. 18 solid bare copper; plastic ins. Tinned copper braid overall; .155" OD.  
19N20867—Bulk. Cost per ft. .5c  
19N20914—100 ft. spool. 3.38  
19N20911—500 ft. spool. 16.90

## LITZ WIRE, FOR RF COILS

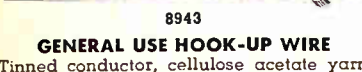
8817: 7 No. 41, 2 nylon wraps. 19N16065—100 ft. spool. 24

## TINNED BUS BAR, 100-ft. COILS

19N16111—8012, No. 14. 96 19N16112—8011, No. 12. 1.38



8941



8943

## GENERAL USE HOOK-UP WIRE

Tinned conductor, cellulose acetate yarn wrap, cel. acet. braid, lacquer coating. 1000 V. breakdown. OD's from .072" to .087". Choice of black, blue, green, red, yellow.

Pkg.	No.	Each	8943—No. 20 stranded	Pkg.	No.	Each	8947—No. 18 stranded
25 ft.	19N16066	.29	19N16068	25 ft.	19N16070	.37	19N16073
100 ft.	19N16080	1.03	19N16081	100 ft.	19N16071	1.18	19N16074
1000 ft.	19N16067	8.53	19N16069	1000 ft.	19N16072	10.29	19N16075

8938: No. 14 stranded, red and black only.  
19N16158—25 ft. coil. 56c  
19N16082—100 ft. spool. 1.99  
19N16157—500 ft. spool. 9.11



8411

## MICROPHONE CABLE, VINYL COVERED

8411: No. 25 stranded tinned copper and steel mixed, polyethylene ins., tinned copper braid; 40 mm/ft., .150" OD.  
19N20857—25 ft. coil. Cost. .98c  
19N20858—100 ft. spool. 3.67



8401

8401: Same construction as 8411 but heavier ins. 25 mm/ft., .200" OD.  
19N20846—25 ft. coil. Cost. 1.22  
19N20847—50 ft. coil. 2.45  
19N20844—100 ft. spool. 4.90



8422

8422: 2-cond. No. 22, 16 No. 34 tinned copper, polyethylene ins. Cabled with cotton braid and tinned copper braid; .240" OD. 16 mm/ft. between conductors, 28 mm/ft. to ground. Vinyl overall.  
19N20868—Bulk. Cost per ft. .8c  
19N20874—25 ft. coil. 1.57  
19N20875—50 ft. coil. 3.09  
19N20876—100 ft. spool. 6.17



8423

## SHIELDED CABLE, RUBBER OVERALL

No. 20, 26 No. 34 tinned copper; cotton wrap, rubber ins. Cabled with cotton braid, tinned copper braid, cotton wrap, rubber overall.  
8423, 3-cond.\* 8424, 4-cond.†  
Pkg. Stock No. Each Stock No. Each  
Per ft. 19N20869 .09 19N20870 .115  
50 ft. 19N20843 3.67 19N20878 4.41  
250 ft. 19N20845 18.37 19N20877 22.05  
\*.280" OD. †.305" OD.



8014

## INDOOR AERIAL & LEAD-IN WIRE

8014: Indoor aerial, flexible No. 25, 13 No. 36 tinned, vinyl ins.  
19N16130—25 ft. card. Cost. 18c  
19N16131—500 ft. spool. 2.50



8200

8200: Lead-in, No. 18, 7 No. 27 tinned, rubber ins. .126" OD.  
19N16228—100 ft. spool. Cost. .98c  
19N16229—500 ft. spool. 3.91  
19N16227—1000 ft. spool. 9.31



8206

8206: Same, but tinned copper braid shield overall, .155" OD.  
19N20871—Cost per ft. .03  
19N20888—250 ft. spool. Your Cost...5.88

## TEST PROD WIRE, FLEXIBLE & LIMP

No. 18, 65 No. 36 tinned; cotton wrap, rubber overall; red or black, Specify color.  
8899: 5000 volts ins., .140" OD.  
19N16336—7 ft. red, 7 ft. black. Each 32c  
19N16335—100 ft. spool. 1.84  
19N16337—1000 ft. spool. 15.43  
8898: 10,000 volts ins., .230" OD.  
19N16332—Bulk. Cost per ft. .035  
19N16331—100 ft. spool. 2.89



8899



8869

## CATHODE-RAY TUBE LEAD CABLE

No. 20, 7 No. 28 tinned; polyethylene ins., red cotton braid, lacquer coating.  
8869: 10,000 volt ins., .140" OD.  
19N20889—25 ft. spool. Cost. .70c  
19N20890—100 ft. spool. 1.99  
8868: 20,000 volts ins., .200" OD.  
19N20891—25 ft. spool. Cost 1.03  
19N20892—100 ft. spool. 3.23



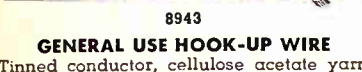
8431

## SHIELDED PHONO-PICKUP CABLE

8431: Flexible and limp. No. 24, 16 No. 36 tinned; rubber ins., tinned copper braid, cotton braid overall; .085" OD.  
19N20872—Bulk. Cost per ft. .035  
19N20848—100 ft. spool. 2.50



8841



8839

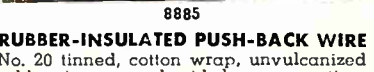
## LOW-LOSS RF PUSH-BACK WIRE

Tinned conductor two cellulose acetate yarn braids, waxed. 1000 volts breakdown. OD's from .067" to .095". Black, blue, green, red, yellow. Specify color.

Pkg.	No.	Each	8839—No. 20 stranded	Pkg.	No.	Each	8844—No. 18 stranded
25 ft.	19N16246	.33	19N16249	25 ft.	19N16199	.37	19N16208
100 ft.	19N16247	1.14	19N16248	100 ft.	19N16204	1.27	19N16205
1000 ft.	19N16245	9.80	19N16250	1000 ft.	19N16203	11.17	19N16209



8838



8885

## RUBBER-INSULATED PUSH-BACK WIRE

No. 20 tinned, cotton wrap, unvulcanized rubber ins., yarn braid, lacquer coating. 2000 volts breakdown. Solid type has .075" outer diameter. Stranded type has .080" outer diameter. Green, blue, red, yellow, and black. Specify color.

Pkg.	No.	Each	8838—Stranded	Pkg.	No.	Each	8885—Solid
25 ft.	19N16528	.34	19N16261	25 ft.	19N16220	.43	19N16230
100 ft.	19N16259	1.18	19N16262	100 ft.	19N16221	1.55	19N16231
1000 ft.	19N16260	10.29	19N16263	1000 ft.	19N16222	13.52	19N16232

8885: No. 20, 10 No. 30 tinned; rubber ins. yarn braid, lacquer coat, tinned copper braid overall; .110" OD. 4000 volts breakdown.  
19N16293—25 ft. coil. 81c  
19N16294—100 ft. spool. 2.65



### TWIN LEAD TRANSMISSION LINE



300 ohm Amphenol 14-056 represents the latest design in RF transmission line. Provides proper match of antenna to all standard 300 ohm input FM and television receivers. 300 ohm recommended by RMA for use with television receivers in broad band operation. For use indoors or outdoors. Low-loss Polyethylene insulation is efficient, tough and weather resistant. Will withstand severe weather conditions.

19N17130—Per foot.....	2 1/2c
Per 100 feet.....	2.12
75-ohm Amphenol 14.080. Especially for low impedance applications.	
19N17131—Per foot.....	2c
Per 100 feet.....	1.90
75 ohm Amphenol 14-023. For amateur transmitting antenna systems. Conservatively rated at 1000 watts, at 30 MC or lower frequency.	
19N17132—Per foot.....	7c
Per 100 feet.....	6.48
300-OHM TUBULAR TRANSMISSION LINE: For use up to 1 KW. Overcomes moisture effects on twin lead. 1/2" outside diameter.	
19N17133—Per foot.....	7c
100-ft. Coil.....	6.48



### COPPER SHIELDING

Flexible, heavily tinned copper shielding slides over cables, bunches conductors.

Stock No.	In. Dia.	Per Ft.	Per 100 Ft.
19N16233	1/8"	2c	1.66
19N16237	1/4"	2c	1.70
19N16238	3/8"	3c	2.66
19N16239	1/2"	5 1/2c	5.04



### 3 & 5 CONDUCTOR SHIELDED CABLE

Three color-coded stranded conductors in tightly woven tinned copper shield. 1/8" outer covering of rubber.

19N16145—Per foot.....	8c
19N16206—50-foot roll.....	3.60
19N16207—100-foot roll.....	7.00
Similar to above, but 5-conductor.	
19N16100—100 feet.....	9.78
Per foot.....	12c



### CRYSTAL & VELOC. MIKE CABLE

Low impedance. 2 conductors, color-coded, in abrasion-proof tinned copper shielding with outer covering rubber.

19N16079—Per Foot.....	6 1/2c
19N16201—50-Foot Roll.....	3.07
19N16202—100-Foot Roll.....	5.49



### SINGLE COND. CRYSTAL MIKE CABLE

Flexible stranded tinned copper with tinned copper braid shield; cotton wrap and lacquered braid. Rubber overall.

19N20842—Dia. .280". Per foot.....	5 1/2c
19N16333—Dia. .280". 50-ft. Roll.....	2.40
19N16334—Dia. .280". 100-ft. Roll.....	5.49



### HEAVY RUBBER CORD

Type SJ. The thick belt of flexible rubber that covers the conductor is made of smooth oil-resisting, abrasion-proof high quality "jacket"!

No.	Size	Ft.	100 Ft.
19N20945	18—2-wire	4 1/2c	4.05
19N20946	16—2-wire	5c	4.50
19N20947	14—2-wire	14c	12.60
19N20948	18—3-wire	5 1/2c	4.95

## WIRE — MIKE CABLE — SHIELDING

### LOW-LOSS H F COAXIAL CABLE



Dielectric is a solid flexible low-loss mechanically stable thermoplastic of Polyethylene proven most efficient in high frequency transmission circuits. All cables listed below are impervious to acids, alkalis, oils and gasoline. All have a woven copper shield braid over the Polyethylene dielectric with a heavy Vinyl outer covering overall. Many other conductor types available.

Stock No.	Amphenol No.	Ohms Imped.	Cap. ft. mmf.	Wire Size	Dielectric O.D.	Cable O.D.	Cost Per Ft
19N17120	RG/8U	52	29	7x21	.285"	.405"	17c
19N17121	RG/11U	75	20	7x26	.285"	.405"	15c
19N17124	RG/22U	95	16	No. 20	.116"	.184"	20c
19N17122	RG/58U	53.5	28	No. 20	.116"	.195"	8c
19N17123	RG/59U	73	22	No. 22	.146"	.242"	10c



### INDOOR ANTENNA WIRE

Multi-strand flexible copper wire covered by a brown mercerized cotton braid. For indoor or AC-DC antenna use. 25-ft. hank.

19N16155.....	17c	19N16167—100-ft. Coil.....	53c
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### 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 Brown—specify color desired.

19N20920—18 Gauge. Per Foot.....	2c
Per 100 Feet.....	1.90
Per 500 Feet.....	9.25



### PARALLEL RAYON CORD

Popular type for connecting radio receivers, lamps, and other installations. Overall covering of rayon braid.

18 GAUGE—1/16" WALL	
19N20836—Maroon.....	} 2 1/2c Per Foot
19N20837—Old Gold.....	
19N20838—Brown.....	
100-Ft. Roll.....	2.18
500-Ft. Roll.....	10.38



### TRANSMISSION CABLE

Consists of twisted rubber-covered conductors covered by a black weatherproof cotton outer braid.

19N17152—Per Foot.....	2 1/2c
Per 100-Ft. Coil. Wt. 4 lbs.....	2.00



### COTTON TWISTED PAIR

18 gauge, 3/32" R.C. wire with a cotton covering. Yellow and green mixture.

19N20902—Per Foot.....	3c
Per 250 Ft. Coil.....	6.75



### TELEPHONE WIRE

For general use and inter-com. phones. 2-Conductor No. 19 Gauge 3/32" R.C.

19N20895—Per Foot.....	3c
Per 100 Feet.....	2.45
19N20896—3-Conductor No. 19. Per Ft. 4 1/2c	
Per 100 Feet.....	3.55



### SHIELDED LEAD-IN, HOOK-UP WIRE

10-strand wire covered with live rubber, waxed cotton braid and woven tinned shield.

19N16240—Per Foot.....	3c
50-Foot Roll.....	1.35
100-Foot Roll.....	2.25



### 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. Available in Black, Red, Blue, Green, and Yellow. Specify color. Shipping wt. per 25 feet: 4 ounces.

19N16382—25 ft. No. 20 Solid.....	24c
19N16383—100 ft. No. 20 Solid.....	86c
19N16384—25 ft. No. 20 Stranded.....	28c
19N16385—100 ft. No. 20 Stranded.....	99c



### No. 18 LEAD-IN WIRE

Solid tinned copper wire with 3/32" rubber easy-strip insulation. For lead-ins ground leads, or aerials. Shpg. wt. per 100 ft: 2 lbs.

19N16200—25 ft. coil.....	22c
Lots of 10.....	1.98
19N16215—50 ft. coil.....	37c
Lots of 10.....	3.33
19N16216—100 ft. coil.....	70c
Lots of 10.....	6.30
19N16217—1000 ft. coil.....	5.95



### COPPER AERIAL WIRE

Made of the finest copper obtainable. All rolls guaranteed to be full length and standard gauge as specified. Fits any type aerial.

### BARE STRANDED—75-Ft. COILS

No.	Size	Per Coil	10 Coils
19N16041	7/26	32c	3.14
19N16042	7/24	46c	4.37
19N16043	7/22	65c	6.18

### BARE STRANDED—100-Ft. COILS

No.	Size	Per Coil	10 Coils
19N16113	7/26	41c	3.90
19N16114	7/24	58c	5.50
19N16115	7/22	84c	7.98

### ENAMELED STRANDED—75-Ft. COILS

No.	Size	Per Coil	10 Coils
19N16045	7/22	93c	8.83

### ENAMELED STRANDED—100-Ft. COILS

No.	Size	Per Coil	10 Coils
19N16117	7/22	1.20	10.40

### SOLID ENAMELED—100-Ft. COILS

No.	Size	Per Coil	10 Coils
19N16118	No. 14	95c	8.80
19N16119	No. 12	1.36	12.95
19N16129	No. 10	2.19	20.81

### ASSORTED WIRE KIT

Contains ten 100-ft. coils of wire, in assorted colors and sizes No. 18 to No. 24. Lead-in, push-back, and hook-up wire.

99N9574.....	4.50
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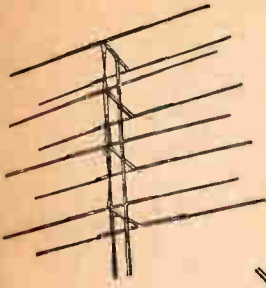


# POPULAR BRAND TV ANTENNAS

## VEE-D-X TV ANTENNA

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 elements, 4 cross-arms, a 10½' mast, and all necessary parts and mounting hardware. Finest grade of aluminum used throughout. Matching stub will match any impedance from 50 to 600 ohms. Less transmission line. Full instructions included. Wt. 28 lbs.

28N21992— 76.15



## VERTROD TV-FM ROD ANTENNA

A new, easy-to-install rod antenna that eliminates the undesirable effects of indoor installations. Designed for strong signal areas or apartment houses where outdoor installations are not allowed. Mounts on outside of any window and projects no more than 45 inches. Has impedance matching terminals for 300 and 72 ohm leads.

28N21993..... 3.20



## JFD TV-FM ANTENNA

Fast, easy-assembling antenna. Covers all TV channels plus FM. Consists of double folded dipole with high frequency lobes and reflectors—all of ½" OD alum. alloy tubing. Less transmission line.

28N21991—Wt. 10 lbs..... 22.64



## WARD ALL CHANNEL TELEVISION ANTENNA

Consists of Folded Dipole Antenna (28N22030) less transmission line. Reflector Kit (28N22033) and High Band Television Antenna Adapter (28N21995). Covers channels 1 to 13. With transmission line for adapter.

15.58

28N21996—Shipping weight 12 lbs.....

## WARD TV STRAIGHT DIPOLE

1. Range: Channels 1 to 6. Kit includes 60 ft. 300-ohm transmission line, 3 low-loss rubber standoffs, 6 plastic standoffs, universal base and hardware.

28N22028—Shpg. wt. 4 lbs..... 7.35



## WARD TV FOLDED DIPOLE

2. For broader antenna tuning. Includes same accessories as above. Supplied less reflector.

28N22030—Wt. 5 lbs..... 8.53



## WARD TV REFLECTOR KIT

For maximum directional gain. Kit has cross member with reflector dipole, "polarizer" connection.

28N22033—Shpg. wt. 3 lbs..... 3.79



## WARD HIGH BAND TV ANTENNA ADAPTOR

3. Use as high band (channels 7-13) antenna or to convert low band (channels 1-6) antenna to complete 13 channel unit. For 1" O.D. Combined, each bay may be oriented independently, to produce finest results from high and low band stations. Consists of alum. folded dipole element, spacer arm and reflector, 5 ft. mast, stub and hardware.

28N21995—Shpg. wt. 5 lbs..... 5.59

## WARD MAST EXTENSION

Sixty-inch weatherproofed extension to increase height of vertical mast on both FM and TV antennas.

28N22031—Shpg. wt. 3 lbs..... 1.53

## 300-OHM TWIN LEAD-IN

Special low-loss 300 ohm twin lead transmission line ideal for use with FM or any Television antenna listed on this page.

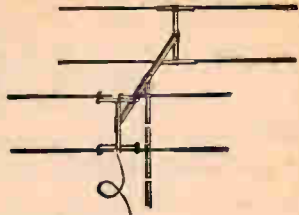
Insulated line is water, acid, alkali and oil proof. 28N17130—Cost per foot..... 2½¢ Per 100 ft. 2.12



## TACO DOUBLE DOUBLET TV ANTENNA WITH REFLECTOR

A rigid, all-metal, all-weather system that gives improved FM, TV and AM reception. The most dependable TV antenna on the market today! Broadband and with a very good gain. Uni-directional—has high signal-to-noise ratio. Antenna and reflector or each have two dipoles. Comes complete with 60 ft. 300-ohm transmission line, 5-ft. mast and mounting hardware.

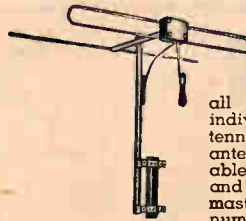
28N21990—Wt. 15 lbs..... 15.88



## RELIANCE TV ANTENNA HIGH BAND ADAPTOR

High frequency array consisting of a hairpin type antenna (folded dipole) with reflector. Covers 174-220 mc. May be stacked with your present low band antenna to provide all channel coverage or used individually as a high band antenna. Easily attached to any antenna by means of two adjustable straps, or may be quickly and easily mounted on separate mast. Made of tempered aluminum alloy—resists wind, rain, and snow.

28N21994—Shpg. wt. 5 lbs... 3.83



## SHUR HI-LO STACKED ARRAY

Upright steel model with reception on channels 1-13. Has separate Hi or Low band orientation, with single lead-in for both bands. Versatile mtg. base. Units pre-assembled. Less transmission line.

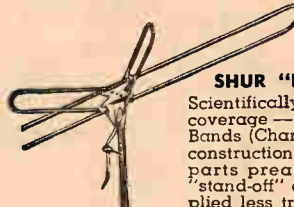
28N21987—Wt. 12 lbs.... 14.70



## SHUR "HI-LO DUAL" BAND DIPOLE

Scientifically designed for wide frequency coverage—gives reception on Hi-Lo TV Bands (Channels 1 to 13) and FM. All metal construction assembled in sections with parts preassembled in units. Includes "stand-off" and versatile mtg. bracket. Supplied less transmission line.

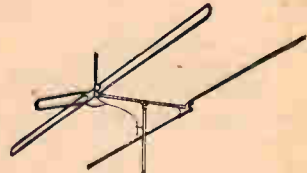
28N21989—Shpg. wt. 7 lbs..... 7.74



## DUAL BAND DIPOLE WITH REFLECTOR

Provides 2 to 3 times the gain of a single element. Has wide frequency coverage with reception on channels 1 to 13 plus FM bands. Metal construction, parts pre-assembled in units. Complete with versatile mounting bracket and "stand-off" insulator. Less transmission line.

28N21988—Shpg. wt. 10 lbs..... 11.34



## SHUR ANTENNA MOUNT

Supports any standard FM or Television antenna array. Fits any roof top, and sloping side, any house side—fits anywhere. Mounting brackets are easily adjustable to any angle. Sustains weight of any fixed standard array without need of guy wires. Rugged, cast aluminum mounting base fits any antenna poles up to 1½" in diameter. Comes complete with all mounting hardware necessary and full instructions.

28N21986—Shpg. wt. 5 lbs..... 5.25





**ANPHENOL  
BROADBAND  
TELEVISION  
ANTENNA**

For use with any television receiver — provides improved reception on all television channels. New broadband antenna eliminates need for individual antenna cut for each band. Added gain results in brighter pictures in low strength areas — highly directional pattern eliminates "ghosts" due to multipath pickup in high strength areas. With 5-ft. aluminum mast, swivel mtg. bracket, and 75-ft. of Amph. 300-ohm low-loss Twin-lead.



28N22044—Shipping weight 10 lbs.....**16.17**

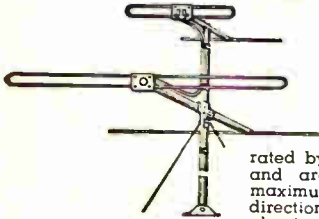
**TRICRAFT TELEVISION AND FM ANTENNA**



Model 300—Designed to satisfy need for an all-purpose, all-wave antenna. Complete coverage of both television bands, as well as the permanent FM band. Comes complete with 65 feet of 300-ohm transmission line and all accessories for installation. Universal mounting bracket at base of 8-ft. mast for mounting on any roof or wall angle.

28N22036—Weight 9 lbs.....**11.61**  
Auxiliary Kit. Converts above into two element ultra-high gain antenna.  
28N21985—Weight 5 lbs.....**10.88**

**RELIANCE 13-CHANNEL FM-TV ANTENNA**



Receives all 13 channels of Television plus FM on one antenna. 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 above tuned dipole. HF and LF arrays electronically separated by patented divider network, and are individually rotatable for maximum signal strength in any direction. Lightweight tempered aluminum alloy.

28N21983—Wt. 14 lbs.....**9.71**



**ICA ALL CHANNEL INDOOR  
TV ANTENNA**

Ideal for apartments. Can be placed under rug, on molding, in attic, etc. Polyethylene insulation. Complete with 10-ft. lead-in, 300-ohm twin lead transmission line.

28N21984—Shpg. wt. 1 lb.....**1.73**

**TV INTERFERENCE ELIMINATOR**

Dual absorption type wave trap that removes interference in metropolitan areas. Works on such complaints as FM and adjacent channel interferences, phase-shift, standing waves, and ghosts due to antenna mismatch, plus sound in pictures due to external causes. Has knob tuning, clips, and twin lead input.

31N24444—Wt. 2 lbs.....**5.88**



**TELEVISION VIEWING LENS FILTER**



Provides improved contrast, reduced glare. Held in place by four suction cups. Finest grade plastic.

31N24486—10" size.....**1.05**  
31N24487—12" size.....**1.77**

**LENS FILTERS**

Eliminates eye strain and fatigue by reducing annoying "Glare." Attached by adhesive strip supplied. Made of optical Lumarith.

31N24488—7" Tube Size.....**.84c**  
31N24489—10" Tube Size.....**1.17**  
31N24490—12" Tube Size.....**2.07**

Circular Filter for Hallicrafters. Fits into hood of viewing tube.  
31N24491—7" Tube Size.....**.99c**

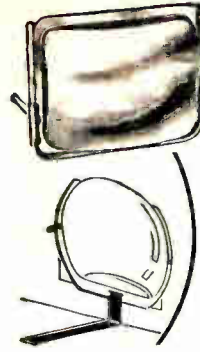


**TV ANTENNA AND ACCESSORIES**

**TELEVISION ENLARGING LENS**

Enlarges TV picture area up to 3x original size. Polished plastic lens fits any table model, requires no installation. Curved brackets for use with Hallicrafters, Motorola sets.

31N24482—For 7" Screens.....**13.95**  
31N24483—For 10" Screens.....**19.95**



**STRIP MOUNTING ENLARGING LENS**

Now you can enlarge your television picture area as much as three times its original size! New strap-mounting plastic magnifying lens fits any model, requires no special installation. Enlarges 7" screens to size given by 10" tube, 10" screens to size given by 12" tube.

31N24477—For 7" Tube.....**11.95**  
31N24478—For 10" Tube.....**13.50**

**VISION RESEARCH LAB'S "TELEBOOSTER"**

Boosts weak signals to bring you brilliant, full-strength pictures on all channels. Eliminates need for outdoor antenna in many metropolitan areas. Improves receiver immunity to Off-Channel interference by use of 2 RF stages. Easily attached, requires no internal connections.

31N21029—  
Shpg. wt. 8 lbs.....**22.50**



**JERROLD ALL-BAND  
TELEVISION BOOSTER**

Boosts entire 6 Megacycle band width of all 13 channels—increases range and signal strength. Reduces interchannel and other interference complaints. Enables use of indoor antennas and multiple sets on one antenna. Easy to install. 7 1/4" x 4" x 4".

31N24449—Wt. 8 lbs.....**20.70**



**MASCO 13-CHANNEL  
TELEVISION BOOSTER**

Greatly increases Television signal strength of all 13 channels in areas where signals are weak. Easy to install and operate—works on any receiver without internal connections.

31N24448—  
Shpg. wt. 8 lbs.....**17.64**



**BOOSTERS FOR CHANNELS 1 TO 6, 7 TO 13**

Individual boosters for areas which do not have Television stations on both the high and low bands. Efficient, economical installations that boost signal strength in fringe areas, reduce interchannel interference. Easy installation—no internal adjustments necessary.

31N24447—Channels 1-6.....**13.03**  
31N24446—Channels 7-13.....



**VEE-D-X LIGHTNING ARRESTER**

First lightning arrester for Television and FM. A high-frequency, low-loss unit that does not vary impedance. Unnecessary to cut transmission line or change spacing for installation. Constructed of high dielectric, low-loss plastic material.

28N24442—Wt. 1 lb.....**1.47**



**RCA LIGHTNING ARRESTER**

Specially designed to protect TV and FM receivers from damage by lightning and static charges. May be attached to 300-ohm transmission line without any stripping of insulation, cutting or soldering of wires, or in any way interfering with continuity of the line. May be mounted directly on any indoor water pipe located near transmission line. Strap mounting fits all standard pipe sizes from 1/2" to 2" in diameter. Designed for transmission lines such as RCA "Bright Picture."

28N24443—Shipping weight 5 oz.....**73c**





**MALLORY REPLACEMENT VIBRATORS**

Mallory replacement vibrators for auto radios and battery operated household receivers. Precision made, Mallory vibrators are noted for their long life and trouble-free service. All vibrators are rated at 6 volts except types W245A and W246 are rated at 4 volts and T4000, T4002 and T4003 are rated at 2 volts.

No.	Type	Each	No.	Type	Each	No.	Type	Each
7N6114	222	4.50	27N6136	294	2.41	27N6085	853	2.41
7N6096	245	4.06	27N6137	298	3.23	27N6086	854	2.41
7N7278	245A	4.06	27N6093	505P	2.03	27N7276	859	2.41
7N6088	245C	4.06	27N7285	506P	3.23	27N6076	860	2.41
7N7280	W245A	4.06	27N6073	514	4.06	27N7293	870	2.41
7N6097	246	4.06	27N6074	716	4.06	27N7296	901M	2.03
7N7281	246A	4.06	27N6052	725C	4.06	27N6079	952W	4.06
7N7283	W246	4.06	27N6107	742	4.06	27N6080	953W	4.06
7N6169	247	4.06	27N7289	743	4.06	27N6081	954	4.06
7N6098	248	4.06	27N7277	748	4.06	27N7275	1100	2.41
7N6171	249	4.06	27N6063	825C	3.67	27N7273	1501	2.41
27N6130	273C	4.50	27N6108	826C	3.23	27N7274	T4000	3.38
27N6167	273D	4.50	27N7292	839	2.82	27N7271	T4002	5.70
27N6135	292	2.82	27N6084	852	2.41	27N7272	T4003	5.23

**MALLORY REPLACEMENT GUIDE**

Includes alphabetical listing of radio and vibrator power supplies by mfg. and model number. Gives Mallory replacement in each case. Also how to install 1946-47 auto radios. No charge with purchase of Vibrator.

**15c**

**NEW! MALLORY VIBRATOR DATA BOOK**

A complete Technical manual on the operation and application of vibrators.

**98c**

**Reliance AUTO RADIO SUPPRESSORS**



Quality black molded cases.

No.	Type	Description
27N5283	A	Standard Spark Plug
27N5246	A	Special for Ford V8
27N5278	B	Compact Spark Plug
27N5247	B	Compact Spark Plug Type for Ford V8
27N5253	C	Cable Type for Buick
27N5285	D	Elbow Cable Type
27N5279	E	Standard Distributor
27N5293	F	Distributor Type for Ford 1936 and earlier
27N5277	F	Distributor Type for Ford 1937-'38-'39-'40.
27N5256	*	Elbow Type for 1938 Plymouth

**14c**

Per 10 Assorted.....1.26  
\*Like "A" with "L" connector.

**WHEEL STATIC ELIMINATOR**

Eliminates front wheel noise. Easy to install. Place in each hub cap. All rust-proof.

27N5294—Each **8c**  
10 for **72c**

**WIRE WOUND UNITS (G)**

Efficient type, do not impair motor efficiency. Low d.c. resistance, high inductance. Acts as r.f. choke. Extra rugged.

27N5296—Spark Plug Type.  
27N5297—Distributor Type  
Each 35c; 10 for **3.15**

**MASTER DISTRIBUTOR UNIT**

Hermetically sealed; impervious to moisture and heat. D.C. resistance is 10,000 ohms.  
27N5284 **39c**  
5 For.....1.72

**ANTENNA CONNECTOR**

Two piece metal container with fibre insulation.  
27N16714 **6c**  
10 for **54c**

**TIRE STATIC NEUTRALIZER POWDER**

Consists of simple injector and bags of anti-static powder. When injected into tire it eliminates car radio static, door handle shocks, and spark bites in inner tubes. Powder is packed in individual bags, one for each tire, including spare. Tire need not be completely deflated in order to inject powder.



Screw injector into valve, fill with powder, and blow air into tire through injector with air hose at filling station. Powder effective throughout life of inner tube.

27N15586—Injector only.....**78c**  
27N15581—Powder only for 5 tires.....**49c**

**ADJUSTABLE TELESCOPIC**

3 section, 56" type. Single hole mount on any contour. Ball swivel with locking point permits adjustment to any angle and positive lock. Has excellent pickup with minimum noise. Permanently attached shielded moisture-proof 36" lead-in and bayonet adapter. Rustproof chromium plated. **2.59**



**DISAPPEARING**

3 sections, 56". Telescopes to 4". Single hole mount. Triple chrome plated brass with bakelite insulation, static discharge tip. Has 48" coax. lead-in with plastic insulation, outer shielded loom, bayonet and swivel connectors. **27N22009.....3.09**



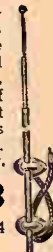
**COWL OR FENDER MOUNT**



3 section, 65". Heavy chrome finish, sturdy rustproof construction. Has wonderful pickup with minimum noise. 36" moistureproof lead-in and bayonet adapter for lead. **27N22002..2.29**

**SIDE COWL MOUNT**

3 section, 56", 2 station mounting. Has rustproof triple chrome plated finish and streamlined insulators. With 36" moistureproof lead-in. Fits the latest streamlined bodies as well as older models. Bayonet adapter. Shpg. wt. 2 lbs. **27N22000.....2.18**  
As above, but 106", 4 section. **27N22001.....2.89**



**ICA ADAPTERS**

A. 27N16715—No. 2372—Lead-in Adapter—Converts Delco to Motorola Fitting.....**16c**  
B. 27N16716—No. 2375—Motorola Pin Plug.....**6c**  
C. 27N16717—No. 2378—Motorola Shielded Jack.....**12c**  
D. 27N16718—No. 2396—Adapter—Converts Motorola Pin Plug to Delco Type.....**5c**

**ICA REPLACEMENT ANTENNA ROD**

For Buicks or other cars using similar windshield mount type antennas. 3 sections, 36" maximum length. Easy to install—set rod in socket and tighten set screw. Of triple chrome plated brass with static tip. **27N21997.....1.73**

**GENERATOR CONDENSERS**

Standard auto radio condensers designed to eliminate generator noise. Fully shielded. Dirt and oil proof.  
No. Mid. Each 10 For  
27N14220 .25 25c 2.25  
27N14215 .5 27c 2.43  
27N14216 1.0 39c 3.50  
Dual  
Similar to above, but 2—5 mid., 2 leads. **27N14198.....49c**

**FORD V8 CONDENSERS**

New condensers specially designed for Ford V8 autos.  
Type A—for V8 models up to and including 1936.  
Type B—for V8 models from 1937 to 1941.  
27N14219—Type A.  
27N14199—Type B.  
Either type, Each **29c**

**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 separately or together. May be used with home receivers also. Wire, escutcheon plate and grill included. **22N19106—Shpg. wt. 3 lbs.....5.88**



**RE-MOTE AUTO SPEAKER**

New rear seat auto speaker with finger tip volume control allows rear seat passengers to enjoy all radio programs without blasting or discomfort for the front seat passengers. Easy to install. 5" speaker in "upholstery" gray plastic. **22N19107—Shpg. wt. 2 lbs.....6.37**





## LOW-COST AERIAL KIT



Has 100-ft. 7/26 aerial wire, 40 ft. insulated lead-in, 25 ft. ground wire, arrester, ground clamp, lead-in strip, 2 insulators, nail knobs.

28N16476—Shpg. wt. 6 lbs....**1.09**

**ECONOMY KIT:** 100 ft. 7/26 aerial wire, 25 ft. lead-in, lead-in strip, ground clamp, 2 insulators, nail knobs.

28N16478—Shpg. wt. 2 lbs....**69c**

## ICA TENNA-SCOPE

New, built-in tuned radio antenna eliminates the use of an outside aerial and ground. Gives better selectivity 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 LOOPS

For battery and midget sets. Replaces antenna coil, high inductance permits removal of turns for adjustment. 4 3/4" x 8".

28N16450—Each.....**48c**  
Lots of 10.....**3.95**



## AMPHENOL ALL-WAVE ANTENNA

Noise-free, 500 KC through 108 MC without switching. M-derived filter with 30-MC cutoff automatically takes broadcast band and short wave from 65-ft. section, FM and other frequencies above 30MC come from 2" dia. horizontal dipole. Both feed through 50-ft. 52-ohm coaxial lead-in. Mtg. includes base plate and tripod-guying clamp.

28N22039—Type 124-001.  
Wt. 9 lbs.....**17.49**

## VERTICAL HOME ANTENNA

Eliminates dangerous horizontal wires, insures clear, noise-free reception. Includes special 12-ft. 4 section antenna mast of rust-proof, flexible steel, 40-ft. lead-in wire, 10-ft. ground wire, arrester, insulators, screws, 2 pipe straps, one strap mtg. assembly.

28N21824—Shpg. wt. 4 lbs.....**3.70**

## FLEXIBLE FM DIPOLE

Consists of two folded dipole elements spliced to 300 ohm twin 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 lb.....**88c**

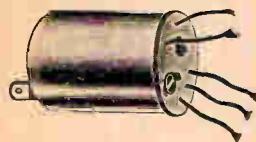
## TACO FM FOLDED DIPOLE ANTENNA

Directional front and rear. With 60-ft. coil of 300-ohm transmission line, antenna with terminal block, 5-ft. wood mast. With hardware.

28N22024—Wt. 6 1/2 lbs.....**6.47**

lbs.....**6.47**  
Reflector Assembly for above—makes antenna unidirectional.

28N22025—Shpg. wt. 3 lbs.....**3.23**



## TRANSFORMER FOR FM ANTENNA

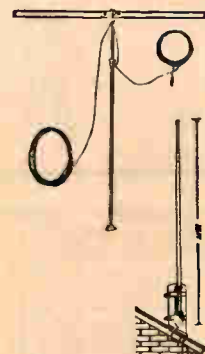
Permits use of FM antenna on either FM or AM without switching. Matches either band to antenna.

6N5968—Shpg. wt. 1 1/2 lbs....**1.91**

## 3/8" PLATED GROUND RODS

Use if pipe ground is not available. Heavy steel yoke for head.

28N17187 4 ft. 48c 10 for 4.56  
28N17188 6 ft. 66c 10 for 6.27



# HOME ANTENNAS & ACCESSORIES

## SINGLE LEAD-IN STRIP



Clip terminal each end.

28N17101—Each 5c 10 for....**45c**

## "GRIP" GROUND CLAMP

Makes a vise-like grip on pipe. Sharp pointed screws make perfect contact.

28N17105 .....**8c**  
10 for .....**72c**



## PIPE GROUND STRIPS

Broad ground clamp adjustable to fit any size pipe up to 2" in diameter. Provided with clip for attaching ground lead.

28N17102 .....Each**5c**  
SAVE MORE! 10 for.....**45c**



## BRACH NEON DUPLEX ARRESTER

For sets having doublet antenna. Uses a Neon-Tube instead of an air-gap or resistance. Glows during lightning storms. Carries heavy discharges safely. Fully Underwriters Approved.

28N16701—Shpg. wt. 1 lb.....**1.15**

## PORCELAIN ARRESTER

A. Housed in brown glazed porcelain; approved.

28N16753—Each.....**19c**  
10 For.....**1.70**



## ARRESTER FOR DOUBLET

B. An approved arrester for the doublet type of antenna. Air-gap type, insulated from ground. Porcelain case.

28N16950.....**43c**



## 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	Size	Each	10	100
28N16972	C	3"	5 1/2c	50c	4.50
28N16986	C	7"	5c	45c	4.05
28N16977	D	2"	4c	35c	3.15
28N16802	E	2 1/2"	5c	38c	3.45



## GLASS INSULATORS

F. Special tempered glass, unaffected by heat or cold. Has a high tensile strength and gives long, dependable service. Choice of 2 sizes, 3" and 3 3/4" long.

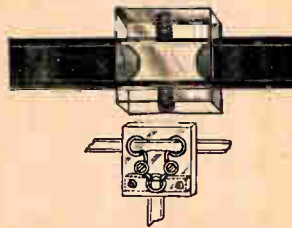
28N16850—3" long.....**5c**  
10.....**45c** 100.....**4.05**  
28N16851—3 3/4" long.....**7c**



## TWIN-LEAD SPLICE

Speeds splicing without the need for twisting or soldering.

28N16954.....**21c**



## MOSELY DIPOLE CONNECTOR

For center connecting 300-ohm line type folded dipole. Positive connection without soldering. Hardware included.

28N16953—Wt. 2 oz.....**34c**

## RELIANCE WINDOW MAST

Enjoy the benefits of an outside aerial without the inconvenience of a roof installation. This fast, easy window mast antenna improves reception on both standard broadcast and short wave. Easily installed in only three minutes. Attach lead-in strap, screw bracket down on sill, and the job is done. 3-section rod extends to 80 inches, telescopes to 40 inches. Cadmium plated steel construction. Includes mtg. screws, hardware and instructions.

28N22006—Shpg. wt. 1 1/2 lbs....**1.73**



## ANTENNA MOUNTS

New "Universal" type for speedy installation. Fits pipes, masts, up to 1 1/4" diameter. Allows complete rotation and adjustment after installation. Cast aluminum base.

28N22045—Shpg. wt. ....**3.96**  
2 1/2 lbs.....



## CHIMNEY MOUNT BRACKET

Pair heavy plated steel brackets with sufficient binding to fit average chimney. Set up in 5 minutes without special tools.

28N22046—Shpg. wt. 2 lbs....**3.49**

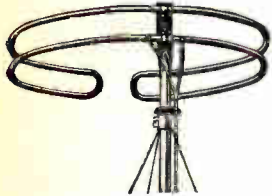




## RELIANCE FM ANTENNAS

All Reliance antennas are of all-metal weather-proof construction and designed to provide maximum electrical efficiency. Each antenna comes complete with 60-foot 300-ohm line, rubber stand-off pads, six low-loss plastic stand-off insulators to minimize the capacity to ground and eliminate reflections on line. Provided with 5-foot mast on adjustable universal mounting base to enable easy installation on any roof or wall angle and facilitate orienting as well. All shipped with complete instructions for installation.

### CIRCULAR FOLDED DIPOLE ANTENNA



Newly designed circular folded dipole antenna is non-directional, simplifying its installation. Re-orientation unnecessary for new station reception. For use in metropolitan areas close to transmitter. Adaptable to window sill mounting.

28N22010—Wt. 6 lbs.....**4.95**

### FOLDED DIPOLE WITH REFLECTOR



Provides additional signal where output from transmitter is weak. Eliminates interfering reflections from buildings and hills. Antenna is directional but adjustable to facilitate mounting and orientations.

28N22012—Wt. 6 lbs.....**6.50**

5-Foot mast extension.

28N22013—Wt. 3 lbs.....**1.30**

### WARD FM ANTENNA

Provides dipole antenna for the varying requirements of each FM installation. Insures finest reception. Each antenna kit includes sixty feet of 300 ohm polyethylene insulated transmission line, three low-loss rubber stand-offs to guide transmission line down mast, and six low-loss plastic stand-offs to guide line to receiver, thus minimizing capacity to ground. Ring for secure attachment of guy wires makes solid, sturdy installation. Universal base for mounting on any roof or wall angle. Vertical element revolves or tilts in base for maximum signal pick-up. Dipole of aluminum; all other parts weather-proofed. For use over entire FM band of 88 to 108 MC.

28N22027—Shipping weight 4 lbs.....**5.29**



### FOLDED DIPOLE ANTENNA



Folded dipole antenna is especially designed for broad antenna tuning and matched impedance to 300 ohm transmission line for maximum response and RF energy. Less reflector.

28N22029—Wt. 5 lbs.....**6.44**

Mast extension for use with any Ward FM straight or folded dipole antenna.

28N22031—Wt. 3 lbs.....**1.53**

### WARD REFLECTOR KITS

Ward reflector kit, when combined with a straight or folded dipole antenna provides maximum directional gain of desired signal and eliminates undesirable and interfering reflections. Kit consists of sturdy weatherproof cross member with reflector dipole and specially designed polarizer connection for mounting. Dipole elements can be rotated to any direction and tilted at any angle to easily orient for highest gain.

28N22032—Shipping weight 3 lbs.....**3.09**

### CO-AXIAL CABLE STAND-OFF INSULATORS

Designed especially for coaxial cable, Amphentol transmitting twin-lead and other types of leads with diameters not exceeding one-half inch. Insulators do not have to be strung on line. Polyethylene insert holds line securely, permanently, but without pinching or changing impedance. Both sizes provided with full-grip wood screw tips.

38N16959—3½ inches long.....**9c**

38N16961—7½ inches long.....**10c**



## AMPHENOL FM ANTENNAS

### FOLDED DIPOLE AND REFLECTOR



For suburban and long distance wide band, trouble-free reception. Rigid low-loss insulators and twin-lead transmission line prevent loss of signal. Swivel bracket permits installation on flat or peaked roofs. With 75 ft. 300 ohm twin-lead line and complete installation instructions.

28N21998—Wt. 5 lbs.....**9.55**



### DOUBLE FOLDED DIPOLE

Receives FM from all directions. Does not require rotation and will give crystal-clear reception over the FM band. Sturdy, lightweight aluminum construction. Swivel mounting plate permits mounting on flat or sloping roofs. With 75 ft. 300 ohm twin-lead, instructions.

28N21999—Wt. 5 lbs.....**9.55**

Side mounting bracket.

28N22043.....**88c**

### BELDEN FM ANTENNAS

FM dipole antenna system is scientifically engineered and may be used on all FM radios, can also be used for standard broadcast reception. Careful electrical design gives excellent response, maximum signal and trouble free reception over entire FM band. Kit contains 65 ft. 300 ohm line and all necessary parts for complete installation.

28N22034—Shpg. wt. 4 lbs.....**5.10**



### BELDEN FM ANTENNA REFLECTORS

The Belden FM reflector, when used with the above dipole antenna forms an antenna array which improves FM reception on any installation. It is a necessary part of any antenna when distance from station is great or location among buildings causes weak reception or reflections. Kit consists of aluminum reflector element and cross member, porcelain junction block and complete instructions for installation.

28N22035—Shipping weight 2 lbs.....**2.06**

### AMPHENOL 300 OHM TWIN LEAD-IN



Special low-loss 300 ohm transmission lead-in line is ideal for use with all FM antennas shown on

this page. Prevents loss of signal between antenna and receiver. Oil, acid, alkali and weather resistant.

28N17130—Per 100 ft.....**2.12** Per ft.....**2½c**

### AMPHENOL STAND-OFF INSULATORS

For twin-lead transmission line. Polyethylene insert fits all types receiving twin-leads. Insulators do not have to be strung on line. With heavy No. 14 wood-screw.

38N16957—3½ inches long.....**9c**

38N16960—7½ inches long.....**10c**



### 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.

38N16958—Each.....**9c**



### WARD STAND-OFF INSULATOR

Unique plastic design holds any flat transmission 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.....**9c**





## DECIMETER DIVERSE ADAPTOR KIT



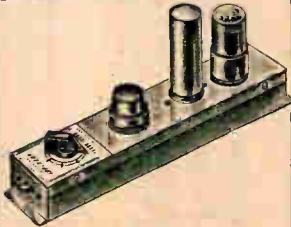
Model DM-430 mini-mizes fading, combines the best features of two antennas with completely automatic electronic action, no relays. Use without tuning on any frequency from 3 to 30 MC. Use with balanced or unbalanced antennas, low-impedance coaxial cables or high-impedance open-wire feed systems. Four tube circuit with 7x7x2 chassis finished in gray wrinkle.

Sensitivity potentiometer mounts in center of front so unit may be cabinet or panel mounted if desired. Neon indicators show which antenna is being used. Barrier strip connections. With all parts, less two 6AC7 and two 6SC7 tubes.

29N21125—Shipping weight 4 lbs. .... **14.65**

## ELECTROVOICE PEAK CLIPPING PREAMPLIFIER

Model 1000 operates directly into mike input of conventional amplifier. Effectively increases consonant-to-vowel intensity. Will greatly add to articulation in the presence of high QRN or QRM. Pi low-pass filter provides attenuation of 24 db at 3,500 cps. Frequencies below 200 cps are reduced to give further improved speech energy distribution on the carrier. Switch provided for selection of conventional or clipped operation. Tube complement 1-6SC7, 1-6H6. Requires 200-300 VDC at 10 ma, 6.3 at .6 amps from external supply. 10 1/4 x 2 1/2". With tubes.



29N21126—Shipping weight 4 lbs. .... **14.41**

## AMATEUR BEAM ANTENNA



Elincor Model 400-EA. Three element 10-meter beam with folded dipole driven element. Uses .1 wavelength spacing for the director and .15 wavelength spacing for the reflector. Complete with aluminum ladder. The folded dipole gives a much broader response than the regular single dipole beams and allows this beam to be fed directly from 50 ohm coaxial line.

28N21976—Shipping weight 19 lbs. .... **30.58**

Model 400-RA three element 10-meter beam using .1 wavelength spacing for director and .15 wavelength spacing for reflector. Designed for 300 ohm twinax lead-in. With all hardware and all aluminum ladder. Elements are 3/4" aluminum tubing and telescope to 5/8". Adjustable from 14 to 18 feet.

28N21975—Shipping weight 16 lbs. .... **26.46**

## 2-METER BEAM ANTENNA



Model 200-EA. Designed especially for use on 2 Meter amateur band. New 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" aluminum tubing, all elements are 3/8". Complete with hardware and instructions.

28N21977—Shipping weight 3 lbs. .... **8.23**

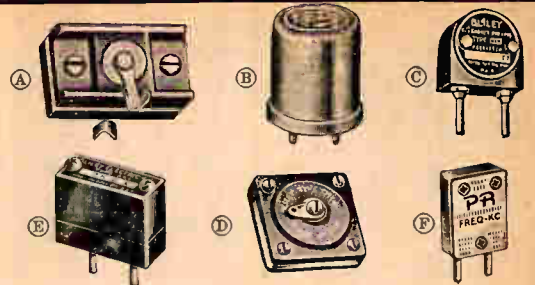
## MILLEN ANTENNA MATCHING PREAMPLIFIER

Impedance matcher and broadband amplifier. 20, 10 and 6-meter bands. Tunes antenna to receiver and amplifies signal with 6AK5 for total gain up to 60 db. Plug-in coils fit into front panel. Requires 180 VDC at 10 ma and 6.3 VAC at 175 ma from your receiver. Complete with plug-in for 27-32 MC, power cable, input and output connectors, less tube. 6 1/4 x 5 3/4 x 4 1/4".

29N21015—Model 92101—Shipping weight 3 lbs. .... **24.75**

29N21016—Plug-in assembly for 48-55 MC. .... **3.15**

29N21017—Plug-in assembly for 13-15 MC. .... **3.15**



## BILEY CRYSTALS

(A) CF6 single signal filter crystal unit. Low holder capacity permits sharp signal discrimination in filter networks. Frequency 455 kc. free of spurious responses within  $\pm 7$  kc.

29N13854 ..... **4.50**

(B) KV3 precision 100 kc. crystal unit for use as frequency standard. Mounts in octal socket, will operate in any position. Comes with schematic of recommended oscillator.

29N13853 ..... **6.95**

(C) CF3 single signal filter crystal for IF filter. Frequency 455 kc.  $\pm 5$  kc. free of spurious responses  $\pm 7$  kc.

29N13855 ..... **5.00**

(D) SMC 100 dual frequency crystal provides either 100 kc. or 1000 kc. source. 1000 kc.  $\pm .05\%$ , 100 kc. can be adjusted to zero beat. For alignment of receivers.

29N13856 ..... **8.75**

(E) Ax2 crystal accurate to  $\pm .002\%$  at 25° C of nameplate frequency. Two units can be mounted in octal socket. Molded phenolic case 1 1/4" wide x 1 1/4" high x 1/8" thick.

29N13851—3500—4000 KC  $\pm 5$  KC specified frequency.

29N13850—7000—8222 KC  $\pm 5$  KC specified frequency.

29N13852—14000—19850 KC  $\pm 30$  KC specified freq.

Each ..... **2.80**

## PR CRYSTALS

(F) Temp. coefficient less than 2 cycles/mc/degree C., accuracy of calibration within 1%. Mounts in octal socket.

No.	Type	Freq. Range	Each
29N13860	Z2	3.5 to 4.0 MC	2.65
29N13861	Z2	7.0 to 7.5 MC	2.65
29N13862	Z3	14.0 to 14.8 MC	3.50
29N13863	Z5	28.0 to 30.0 MC	5.00

## CRYSTAL SOCKETS



Millen 33002. 3/4" spacing, .125" pins. Steatite insulation.

29N8050 ..... **30c**

Millen 33102. .487" spacing, .095 pins.

29N8057 ..... **30c**

Millen 33202. 1/2" spacing, .125" pins. Steatite insulation.

29N8051 ..... **30c**

Amphenol 54-2 Polystyrene. 3/4" spacing, .125" pins.

29N8062 ..... **22c**

## CRYSTAL HOLDER ADAPTORS

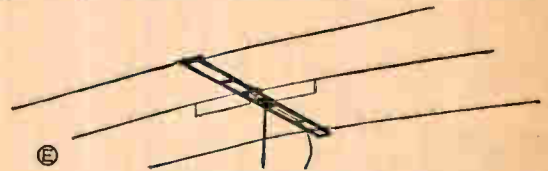


Mosley 5-75 adapts 1/2" spaced holder to 3/4" spacing.

29N8054 ..... **34c**

Mosley 75-5 adapts 3/4" spaced holder to socket with 1/2" spacing or to octal socket.

29N8059 ..... **34c**



## PREMAX ROTARY BEAM KIT

High gain directive 3-element array using single frame and adjustable, duraluminum tubing to cover 6, 10, or 11 meter bands. Easy one-way assembly. Uses any feed system. Includes frame, 3 pairs of elements with insulators and hardware.

28N22021—Model RB-6309—Shipping weight 30 lbs. .... **29.40**

Premax No. 309-A. Extra elements. In pairs only.

28N22022—Shipping weight per pair 2 lbs. .... **5.29**

## PREMAX ROTOMOUNT ANTENNA TURNTABLE

No. BM-46. Manually operated turntable will support the largest beam assembly. Remotely directed by means of flexible steel cables for swift and accurate beaming. Full 360° rotation in either direction. 7" dia. ball thrust bearing. Shaft support by two side bearings to eliminate side play. With 6 ft. of galvanized flexible steel cable.

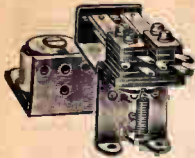


Platform 10x12".

28N22023—Shipping weight 17 lbs. .... **21.46**



**GUARDIAN SERIES 200 (UNIVERSAL) RELAYS**



Consists of relay frames with either 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 noninductive load rating of 8 amps at 115 volts, 60 cycles AC.

Parts assortment includes springs, round and flat head silver contact rivets, bushings, separators, washers, and lifters. Detailed instruction sheet shows how to make various combinations. May be used for all blade switch applications.

- 16N14283—Type 200-1 Relay Frame SPDT Assembly.....96c
- 16N14284—Type 200-2 Relay Frame DPDT Assembly.....1.32
- 16N14305—Type 200-3 Contact Parts Assortment.....96c

**AC RELAY COILS**

- 16N14285— 6 volts.....} **1.18**
- 16N14286— 12 volts.....} Each
- 16N14288— 24 volts.....} Each
- 16N14289—115 volts.....} **1.47**

**DC RELAY COILS**

- 16N14290— 6 volts.....} **1.18**
- 16N14292— 12 volts.....} Each
- 16N14297— 24 volts.....} Each
- 16N14298— 32 volts.....} Each
- 16N14304—110 volts.....} **1.47**

**SPST NORMALLY OPEN KEYING RELAY**



Oversize silver contacts handle filament center-top 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.

- 16N14119—Series K-320. Size: 3½" x 1½" x 1½". Wt. 4 oz.....**2.47**

**ADJUSTABLE OVERLOAD RELAY WITH ELECTRIC RESET**



Series X-300-ER.—Positive, precise protection against current surges or continuous overloads. Remote panel installation of the control

potentiometer 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-volt insulation.

- 16N14120—4¾" x 1½" x 2". Wt. 13 oz.....**4.85**

**ANTENNA AND HIGH FREQUENCY RELAYS**

Low capacity oversize silver contacts handle 1 KW in AF or RF circuits at frequencies up to 28 MC. Alsimag insulation; 110 volt AC coils.

- 16N14118—Model R-100 SPST, normally open.....2.08
- 16N14115—Model R-100-B SPST, normally closed.....2.08
- 16N14117—Model R-100-G DPDT.....4.49

**PRICE COAXIAL ANTENNA TRANSFER RELAY**



SPDT Relay, with a capacity of 750 watts RF if impedances are matched. Provided with three SO-239 female receptacles to accommodate plugs on RG-8/U cables to antenna, transmitter and receiver.

Complete with coil for 110 volts, 60 cycles AC operation.

- 16N14133—Type 6350 Relay. 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 receiver switching. Overall dimensions with auxiliary contacts are 4½" x 3" x 2".

- 16N14134—Shipping weight 1 lb.....**10.78**

**WARD-LEONARD RELAYS**



Standard-Antenna Change-over. Mycalex base and cross-arm. Coil consumption 3 to 4 watts at 110/120 volt, 50/60 cycles AC. Wiping make and break silver-to-silver contacts. Base: 2½" x 2½". DPDT, single break.

- 16N14148—Type 507-531. Weight 1 lb.....**5.60**

Type 507-534, with Break-In. As above, but with 2 additional single poles, one normally open, the other normally closed.

- 16N14131—Base: 3½" x 2½". Weight 1 lb.....**7.69**

**REMOTE CONTROL HEAVY DUTY MIDGET**



Single-Pole, double-throw, single break. 110 volt AC operation. Silver-to-silver self-cleaning contacts. Rating: 20 amps. AC normally open, 15 amps. AC normally closed. 2½" x 1½". Type 507-549.

- 16N14124—Weight 1 lb.....**3.50**

**THERMAL TIME-DELAY RELAY**



For rectifier tube protection. Single-pole double-throw, single break. Timing adjustable from 15 to 45 sec. 4 amp. contacts. Dustproof cover. 110/120 volt, 50/60 cycle. 4½" x 4¾".

- 16N14129.....**10.50**

**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 terminals. Metal parts heavy plated; coils impregnated with varnish. Double-break types carry 20 amps non-inductive load at 110 volt, single-phase motor. Single break types carry non-inductive loads of 15 amps. 110 volt, AC, 8 amps. 110 volt, DC or 220 volt, AC. 2½" x 2¾" x 2".

No.	Type	Contacts	Coil Volts	Each
16N14254	PR3A	SPST-DB-NO*	6V/60c AC	\$3.10
16N14255	PR3A	SPST-DB-NO*	110/60c AC	3.10
16N14256	PR4A	SPST-DB-NC*	6V/60c AC	3.15
16N14257	PR4A	SPST-DB-NC*	110/60c AC	3.15
16N14258	PR5A	SPDT	6V/60c AC	3.20
16N14262	PR5A	SPDT	110/60c AC	3.20
16N14263	PR7A	DPST-NO	6V/60c AC	3.65
16N14264	PR7A	DPST-NO	110/60c AC	3.65
16N14244	PR11A	DPDT	6V/60c AC	4.90
16N14245	PR11A	DPDT	110/60c AC	4.90
16N14265	PR3D	SPST-DB-NO*	6V/DC	3.10
16N14266	PR3D	SPST-DB-NO*	24V/DC	3.10
16N14267	PR4D	SPST-DB-NC*	6V/DC	3.15
16N14268	PR4D	SPST-DB-NC*	24V/DC	3.15
16N14269	PR5D	SPDT	6V/DC	3.20
16N14270	PR5D	SPDT	24V/DC	3.20

\*NO—normally open. \*NC—normally closed.

**"MR" SERIES FOR LIGHTER LOADS**



Handle 8 amps. AC or 4 amps. DC non-inductive loads. AC coils require approx. 2 watts; DC 1½ watts. Size: 1¾" x 1½" x 2¾".

Type	Contacts	Coil Volts	Each
16N14271	MR5A SPDT	6V/60c AC	\$2.15
16N14272	MR5A SPDT	110V/60c AC	2.15
16N14273	MR11A DPDT	6V/60c AC	2.80
16N14274	MR11A DPDT	110V/60c AC	2.80
16N14275	MR5D SPDT	6V/DC	2.15
16N14276	MR5D SPDT	24V/DC	2.15
16N14277	MR11D DPDT	6V/DC	2.80
16N14278	MR11D DPDT	24V/DC	2.80

**PLATE CIRCUIT RELAYS**



Armature spring adjustable for applications requiring closing or opening on specified currents or voltages.



Table below shows standard factory adjustments for current to energize, also minimum after readjustment of spring. (A) LS series. (B) LM series.

No.	Type	Amps.	Coil	Min. Cur.	Std. Cur.	Cost
16N14279	LS5*	4	2,500 ohms	6.0	9.0	\$1.90
16N14281	LS5*	4	5,000 ohms	4.3	6.3	2.20
16N14209	LM5*	5	2,500 ohms	2.4	6.3	2.30
16N14210	LM5*	5	5,000 ohms	1.7	4.5	2.55
16N14211	LM5*	5	10,000 ohms	1.2	3.2	2.95
16N14212	LM11†	5	2,500 ohms	5.3	9.0	3.40
16N14213	LM11†	5	5,000 ohms	3.7	6.3	3.65
16N14214	LM11†	5	10,000 ohms	2.7	4.5	4.05

\*Denote SPDT †Denote DPDT

**AUTOMATIC LOCK RELAY ELECTRIC RELEASE**



Employs two coils—one to operate relay and another to release the lock. Includes ¾" fine silver dome-shaped contacts rated conservatively 4-20A.

When circuit 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 automatic lock.

- 16N14142—EL11A—DPDT contacts, 110 volt, 60 cycle coils.....**4.30**
- 16N14143—EL5A—SPDT contacts. Shpg. wt. 2 lbs.....**3.75**

**AMPERITE THERMAL DELAY**

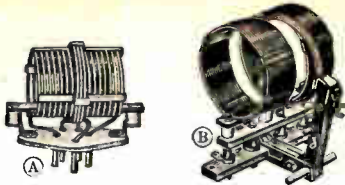


SPST, normally open, closed by heater after delay (in seconds). In octal tube envelope. Heaters 6.3 watt, approx. 0.4 A., or 115 volt, approx. 2½ watt. Contacts 115 volt, 3A. AC, DC if shunted with capacitor.

Delay	6.3V Heater	115V Heater	
5	16N14400		} <b>2.10</b> Each
15	16N14401	16N14405	
30	16N14402	16N14406	
75	16N14403	16N14407	
120	16N14404	16N14408	



# BARKER AND WILLIAMSON



## JUNIOR AND TYPE B INDUCTORS

**Type A.** Juniors for powers up to 75 watts input with plate voltages up to 850. Fitted with standard 5-prong steatite base. Dimensions: 3 1/2" x 1 1/2" x 3 3/4".  
**Type B** for powers up to 150 watts input with plate voltages up to 1500. Steatite base and plug-in jack mounting. Overall dimensions: 3 1/2" x 2 3/8" x 4". Capacities shown (in mmf) to resonate the L.F. end of the band can actually be 5 to 20 mmf less because of tube and wiring capacities.

Juniors				Type B			
Band	Cap.	Stock No.	Cost Each	Stock No.	Cost Each	Stock No.	Cost Each
<b>End Linked Models</b>							
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	12N10483	2.83	
80	60	12N10465	1.38	36	12N10484	3.16	
<b>Center Link Models</b>							
6	15	12N10466	1.38	14	12N10485*	2.41	
10	16	12N10467	1.38	20	12N10486*	2.41	
20	16	12N10469	1.38	34	12N10488*	2.48	
40	33	12N10470	1.38	37	12N10489*	2.83	
80	53	12N10471	1.38	39	12N10490*	3.16	
<b>Variable Link Models</b>							
6	15	12N10472	1.38	15	12N10491*	1.93	
10	22	12N10473	1.38	14	12N10492*	1.93	
20	21	12N10476	1.38	25	12N10494*	2.00	
40	31	12N10477	1.38	29	12N10495*	2.28	
80	46	12N10478	1.38	46	12N10496*	2.61	

\*With center tap.

Steatite Jack Bar Assembly for end or center link Type B inductors (former type A56). **85c**

Jack Bar and Swinging Link for variable link Type B inductors. **3.44**

12N10498



## B & W TYPES T AND HD

**Type T:** Up to 500 watts input. Link for variable center-linked models hinged on jack base—same link for plug-in coils on all bands. Matches load imp. of 72ohms. Mtg. 7 1/2" x 6 1/4" x 5".

**Type HD:** Heavy duty, up to 1000 watts input. Similar to type T. Heavy steatite plug bar and jumbo banana plugs. Mtg. space 11x9x7". Capacities: Can be 5, to 20 mmf less than shown, because of tube and wiring capacities.

Type T				Type HD			
Band	Cap.	Stock No.	Cost Each	Stock No.	Cost Each	Stock No.	Cost Each
<b>Center Linked Models, Center-Tapped</b>							
10	19	12N10499	2.89	20	12N10511	5.85	
20	21	12N10501	2.96	20	12N10513	6.54	
40	34	12N10502	3.30	20	12N10514	6.88	
80	55	12N10503	3.65	34	12N10515	7.56	
<b>Variable Linked Models, Center-Tapped</b>							
10	17	12N10504	2.20	16	12N10516	4.48	
20	22	12N10506	2.28	18	12N10518	5.16	
40	29	12N10507	2.61	33	12N10519	5.50	
80	39	12N10508	2.96	41	12N10520	6.19	

Steatite Jack Bar Assembly for center link Type T inductors (old type A54). **1.25**

Base Assembly and Swinging Link for variable-link Type T Inductors. **5.50**

Jack Bar Assembly for center link Type HD Inductors. **1.75**

Base Assembly and Swinging Link for variable-link Type HD Inductors. **6.88**

12N10521

12N10522

## NATIONAL HI-FREQUENCY COILS

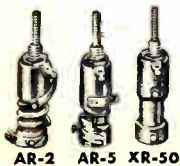
High Q permeability tuned RF coils, tune with capacities from 100 to 10 mmfd. Inductive winding replaceable.

12N14382—AR-2. 75 MC to 220 MC. **1.70**

12N14383—AR-5. 37 MC to 110 MC. **1.46**

Hi-Frequency Coil Form. Winding length 1 1/8", dia. 1/2". Iron slug 3/8x1/2". **90c**

12N14384—XR-50



# TRANSMITTING & HAM COILS, CHOKES

## 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 75-watts. Uses same coil design as Juniors. Tunes with 50 mmf variable capacitor. For interstage coupling between 2 beam-power tubes or beam-power tubes and triodes. **4.81**

12N10523—Type 2A. Mtg. space 3 1/2" x 2". Depth 3"..... **4.81**

## 75 AND 150 WATT TURRETS

75-watt for link coupling single-ended or push-pull low-power stages with tubes at voltages up to 850. 6 5/8" dia. 4" deep. 150 watt for single, double-ended circuits, voltages to 1000. Each **9.38**

12N10524—75-watt JTCL, center linked, center tapped..... **9.38**  
 12N10525—75-watt JTCL, end linked, untapped..... **9.38**

12N10526—150-watt BCL, center linked, center tapped. Each **11.69**  
 12N10527—150-watt BEL, end linked, untapped..... **11.69**

## JOHNSON SPRING CLIP FOR INDUCTOR COILS

Takes No. 20 to No. 10 wire. Lock screw adjustment. **9c**

## RELIANCE TRANSMITTING CHOKES

1. Tapered 8-sec. winding on ceramic dowling.

Cat. No.	Milli-henries	Cap. Ma.	DC Ohms	Cost Each
12N10234	2.8	1000	5	1.62
12N10235	5.5	500	12.5	1.44
12N10229	5.9	200	34.9	1.44

## RELIANCE RF CHOKES

2. 4 pie-wound sec. on Isolantite form. **22c**  
 12N10106—2.5 ohm; 150 ma. 50 ohms..... **22c**  
 12N10109—2.1 ohm; 250 ma. HD type..... **25c**

## PARASITIC SUPPRESSOR

3. Non-inductive 50 ohm resistor with choke of 0.3 mh., .003 ohms DC. **1.15**  
 12N10021—Each..... **1.15**

## MILLEN RF CHOKE

4. Brass tap insert; die-cast, steatite ends. 50 ohms DC res. **42c**  
 12N8058—2.5 mh; 125 ma..... **42c**

## 5. OHMITE POWER LINE CHOKES

Stock No.	M.H.	Ohms. D.C.	Core Dim.	Cost Each
12N10017	14	.15	4x3 1/8"	1.26
12N10018	15	.07	6 1/2 x 3 3/4"	2.11
12N10019	18	.045	8 1/2 x 1 1/8"	3.06
12N10020	46	.085	8 1/2 x 1 1/8"	4.59

## BUD HF AND UHF R.F. CHOKES

12N10124—Illustration 6. **65c**  
 2.5 mh, 250 ma. 16 ohms DC..... **65c**  
 12N10108—Illustration 8. **21c**  
 5.7 mh, 750 ma. 1.4 ohms DC..... **21c**

## 7. NATIONAL CHOKES

12N14429—R100—2 1/2 mh, 50 ohms DC res. 125 ma. wire leads (A)..... **35c**  
 12N14421—R100U—As above, chas. mtg. (B)..... **42c**

12N14422—R300—1 mh, 10 ohms DC res. 300 ma. wire leads (A)..... **38c**  
 12N14423—R300U—As above, chas. mtg. (B)..... **42c**

## R-175 CHOKE

10. For series or parallel feed circ. to 3000V. DC res. 6 ohms; 225 mh, 800 ma DC rating. **2.25**  
 12N14398—Each..... **2.25**

## MILLEN HASH FILTERS

9. Eliminates interference from mercury vapor rectifiers. Type A for 82 or 83 tubes; Type B for 866's. Connect in plate leads, close to tube. **1.00**  
 12N8060—Type A..... **1.00**  
 12N8061—Type B, Per Pair..... **1.25**

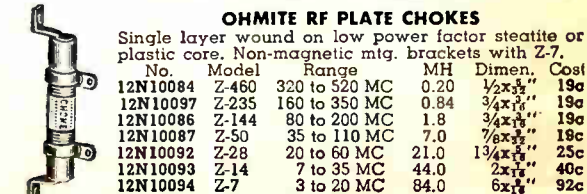
## NATIONAL R154U CHOKE

11. For 20, 40, and 80 meter bands. Inductance, 1 mh; D.C. Resistance 6 ohms. DC current 600 ma. Wound on isolantite core. **1.40**  
 12N14397—Each..... **1.40**

## OHMITE RF PLATE CHOKES

Single layer wound on low power factor steatite or plastic core. Non-magnetic mtg. brackets with Z-7.

No.	Model	Range	MH	Dimen.	Cost
12N10084	Z-460	320 to 520 MC	0.20	1 1/2 x 3/4"	19a
12N10097	Z-235	160 to 350 MC	0.84	3/4 x 3/4"	19a
12N10086	Z-144	80 to 200 MC	1.8	3/4 x 3/4"	19a
12N10087	Z-50	35 to 110 MC	7.0	7/8 x 3/4"	19c
12N10092	Z-28	20 to 60 MC	21.0	1 3/4 x 3/4"	25c
12N10093	Z-14	7 to 35 MC	44.0	2 x 3/4"	40c
12N10094	Z-7	3 to 20 MC	84.0	6 x 3/4"	92c





# TRANSMITTING DIALS AND KNOBS

## MILLEN MODEL 10035 PANEL AND DIAL



Four scales for hand calibration, 0-100 linear scale as guide. 8 1/4" x 6 1/2" escutcheon can be removed without disturbing dial mechanism. Drive ratio 8:1.  
11N8077—Shpg. wt. 1 lb..... **6.00**

## NATIONAL "MCN" SMALL SCALE DIAL



Ideal for mobile installations, small converters and tuners. May also be mounted on standard 3 1/2" rack panel if desired. Provides three calibrating scales and a 0-100 logging scale. On the rear side of the dial, the mechanism extends 1/4" below the dial frame. Size: 2 3/4" x 3 3/8".  
11N14478—Shpg. wt. 1 lb..... **2.70**

## MILLEN 10039 PANEL DIAL



Compact panel dial with completely self-contained operating mechanism to eliminate back of panel interference Ratio 8 to 1. Extremely compact for easy mounting. Features include finger-tip knob, 0-100 logging scale plus 5 blank scales. Handsome black art metal finish, 4x3 1/4".  
11N8082—Shpg. wt. 1 lb..... **2.70**

## NATIONAL "B" VERNIER DIAL

Ratio variable from 6:1 to 25:1. Black Bakelite shell. 4" diameter.  
11N14367—Clock 200-0 in 360°. } Each  
11N14368—0-100-0; 180°. } **2.70**  
Type "BM"—Without variable ratio, 3" dia.  
11N14371—0-100-0; 180°. } Each  
11N14372—Clock, 200-0; 360°. } **2.10**

## NATIONAL "N" DIAL, BAKELITE KNOB

Engine divided scale and vernier. Reads 1/10th division. Drive ratio 5:1. Dia. 4".  
11N14363—Counter 0-100, 180°. } Each  
11N14364—Clockwise 100-0, 180°. } **4.50**  
11N14365—Clockwise 150-0, 270°. }  
11N14366—Clockwise 200-0, 360°. }

## GORDON HAND WHEELS

Bakelite Wheel with pointer. Fits 1/4" dia. shafts.  
11N14641—3 1/4" with 180° scale..... **2.06**  
11N14642—2 1/4" with 180° scale. Each...1.47  
11N14643—1 3/4" with 180° scale. Each...1.15  
11N14644—1 1/2" with 80° scale. Each...1.08  
11N14645—1 1/8" with 270° scale. Each...1.08  
Hand Wheels with pointer only, less scale.  
11N14646—3 3/4" Each..... **.94c**  
11N14647—2 1/4" Each..... **.82c**  
11N14648—1 3/8" Each..... **.65c**  
11N14649—1 1/8" Each..... **.53c**

## MILLEN No. 10008 DIAL

Has a range of 0 to 100 counter-clockwise. Constructed of heavy gauge nickel silver. Insulated from shaft by large black bakelite hub. Easy-to-grip type knob. Overall diameter of dial 3 1/2".  
11N8078—Wt. 1 lb..... **1.00**

## ICA MINIATURE DIALS

Chrome silver dials with black etched numerals. Equipped with finger-tip black knob. Only 1 5/8" in diameter. Fits 1/4" shafts. Ranges from 1-10 over 180 and 270°.  
11N14234—0-10. 180°..... **50c**  
11N14235—0-10. 270°..... **50c**

## PRECISION VERNIER DIALS

Have etched calibrations graduated from zero to 100. Large flanged knob has bushing for 1/4" knob-shafts. Shpg. wt. 1 lb.  
11N14236—4" Dia. 325° Rot..... **1.62**  
11N14237—2 3/4" Dia. 325° Rot..... **1.23**  
11N14238—4" Dia. 180° Rot..... **1.62**  
11N14239—2 3/4" Dia. 180° Rot..... **1.23**

## NATIONAL R & O DIALS

Type O—3 1/2" Dial. Nickel silver. Marked 0-100. 180° counter-clockwise. Large easy-to-grip central knob. For 1/4" shaft. **1.00**  
11N14567..... **1.00**  
Type R—1 5/8" Dial. Etched nickel silver. 180°. Marked 0-10. 1/4" shaft. **60c**  
11N14568..... **60c**

## NATIONAL TYPE "ACN" DIAL

Designed for E.C. oscillator or U.H.F. receiver. 5-range scale for hand calibration, 0-100 linear scale as guide. 2 extra scales, lucite dial and pointer. 5:1 vernier, 1/4" shafts. Frame: 5" x 7 1/4".



11N14474—Wt. 1 lb..... **3.30**  
"SCN" Dial. Same as above but smaller. 4 7/8" x 6 1/4".  
11N14473—Shpg. wt. 1 lb..... **3.00**

## 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. 5 1/8" x 7 1/4".  
11N14477—Wt. 2 lbs..... **6.00**



## TRANSMITTER KNOBS FOR 1/4 IN. SHAFTS

All black bakelite but 11N13018 is a black lacquered wood.  
No. Type Size Ea. 10 For No. Type Size Ea. 10 For  
11N13022 1 1 1/2" d. 30c \$2.70 11N13005 3 1 3/8" d. 20c \$1.80  
11N13018 1 1 5/8" d. 12c 1.08 11N13013 3 1 5/8" d. 21c 1.89  
11N13004 1 1 3/4" d. 31c 2.79 11N13012 3 2 3/8" d. 26c 2.34  
11N13011 1 2 1/4" d. 32c 2.88 11N9885 4 1 1/2" d. 11c .99  
11N13010 1 3" d. 41c 3.69 11N9886 4 1 1/2" d. 12c 1.08  
11N9896 2 1 1/2" d. 21c 1.89 11N13007 5 1 1/2" d. 26c 2.34  
11N13014 3 1 1/8" d. 17c 1.53 11N13008 5 1 5/8" d. 35c 3.15  
11N13009 5 2 3/8" d. 41c 3.69

## MILLEN WORM DRIVE ASSEMBLY



6. Right angle assembly with spring loaded split gears. Cast aluminum frame may be panel or base mounted. Ratio 16:1. Drive shaft 1/4" dia.; geared shaft 1/4" dia., couples with flexible coupling (not supplied).  
11N8000—Shpg. wt. 2 lbs..... **4.50**

## MILLEN RIGHT ANGLE DRIVE



7. For switches and potentiometers that must be located at right angles for short leads, etc. Uses bevel gears. Mounts on "stand-off rods", single hole bushing or tapped holes.  
11N8001—Milken 10012..... **3.75**

## MILLEN DIAL LOCK



8. Rotation of knob depresses finger firmly clamping dial without movement.  
11N8079..... **45c**

## MILLEN FLEXIBLE COUPLING



9. Angle drive up to 45°. Seatite insulated, 1/4" shafts.  
11N8039..... **42c**

## ETCHED METAL DIAL PLATES



10. Black dial plates, calibrated 0-10 in 300° 2 1/4 x 1 1/4", with 4 mtg. holes. Specify Marking: Plain, Tone, Record, Gain, Mike.  
11N9904—Each..... **15c**

## ICA CHROME DIAL PLATES



11. Black Etcho-Engraving on Chrome Silver background. Grain satin finish. Calibrations 0-100.  
11N14184 180° 2" Dia. **43c**  
11N14191 325° 2" Dia. **43c**  
11N14192 180° 3 1/2" Dia. **67c**  
11N14193 325° 3 1/2" Dia. **67c**  
11N14194 180° 4" Dia. **76c**  
11N14195 325° 4" Dia. **76c**

## MILLEN PANEL TRANSFERS

12. 1/8" Block letters for all rigs.  
11N8012—Black on White..... **1.25**  
11N8013—White on Black..... **1.25**

## SHAFT COUPLINGS

13. All take 1/4" shafts.  
11N8461—TX-8. Isol. Ins..... **60c**  
11N8470—TX-9. Steat. Ins..... **75c**  
11N8471—TX-10. Phen. Ins..... **40c**  
14. Flexible Coupler for 1/4" shafts or for extending a shaft at an offset angle. Insulated.  
11N9751—Bakelite..... **30c**  
11N9750—Ceramic..... **38c**

## FLEXIBLE SHAFT COUPLINGS

15. Isolantite insulation, short length of flex. shafting. Drives 1/4" shaft any angle to 90°.  
11N14530—TX-12. 4 5/8"..... **90c**  
11N14529—TX-13. 7 1/8"..... **1.05**  
11N14531—TX-11. Without isolantite insulation 4 5/8"..... **42c**  
SOLID Isolantite couplings:  
11N14501—TX-1. 1 3/4"..... **65c**  
11N14502—TX-2. 3 1/4"..... **75c**



### BUD MIDGET CONDENSERS



Small and sturdy with high mechanical and electrical efficiency. Insulation used is Steatite. Rotor and Stator plates are brass and are electro-soldered to their respective rods. All metal parts are cadmium plated. Condensers have both front and rear bearings, with either mid-line type plates (straight line wave length), or semi-circular plates (straight line capacity).

#### Semi-Circular Type—Double Bearing MMFD

No.	Type	Max.	Min.	Gap	Each
11N10827	MC1861	15	4	.060"	1.20
11N10828	MC1862	35	5	.060"	1.55
11N10829	MC1863	50	7	.060"	1.71
11N10830	MC1864	75	9	.060"	2.01
11N10831	MC1865	100	12	.060"	2.20

#### Two-Gang Variables

Capacities shown are per section.

No.	Type	Max.	Min.	Gap	Each
11N10834	MC1882A	100	7	.024"	2.60
11N10832	MC1884A	20	4	.060"	2.45
11N10833	MC1885A	35	5	.060"	2.65

### BUD SINGLE BEARING MIDGET CONDENSERS

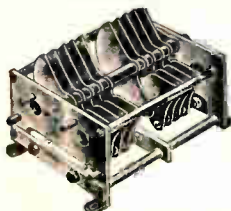


Constructed identical to Midget Condensers with the exception that these condensers have a front bearing only. .024" air gap.

#### SEMI-CIRCULAR TYPE—SINGLE BEARING

No.	Type	MMFD	No. Plates	Each
11N10835	MC-1870	15	3	.73
11N10836	MC-1872	33	4	.83
11N10837	MC-1873	50	5	.93
11N10838	MC-1875	100	7	1.08
11N10839	MC-1876	140	8	1.22

### NATIONAL "TMA" UNITS



Heavy aluminum plates and Isolantite insulation; 4-hole bolt-spacer panel; 1/4" shafts 1 1/2" long; 4/32" wide, 3/8" high; type A (last letter) have .171" gap; type B, .265"; type C, .359".

No.	Type & Mmfd.	Plates	Volts	Each
11N14369	TMA-100B	23	9000	8.50
11N14328	TMA-50A	7	6000	4.95
11N14329	TMA-100A	15	6000	5.85
11N14330	TMA-150A	21	6000	6.45
11N14332	TMA-50DA*	8-8	6000	6.75
11N14333	TMA-100DA*	14-14	6000	8.75
11N14544	TMA-150B	35	9000	9.95
11N14545	TMA-60DB*	15-15	9000	8.95
11N14546	TMA-50C	13	12000	5.55
11N14548	TMA-40DC*	11-11	12000	8.50

\* Split stator units.

### NATIONAL LOW POWER UNITS



"TMS" Aluminum plates and frames; Isolantite insulation; 1/4" shafts, 1 1/2" long; both panel mounting and 2-hole base mounting; adjustable rear bearing; TMS units have .026" air gap, TMSA units, .065"; 1 3/4 x 2 1/2 x 2 3/4". All 1000 Peak Volts, except 11N14555 and 11N14556 are 2000 Peak Volts.

No.	Nat'l No. & Cap.	No. of 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.

### BUD TINY-MITE CONDENSERS

Designed for u.h.f. circuits. Extremely compact. Have rigid construction, close fitting bearings, Steatite insulation. Soldered brass plates are bright cadmium plated. 3-way mounting. Shaft on single units permits ganging. Panel space 1 1/2 x 1 1/4".

#### SINGLE-GANG CONDENSERS

No.	Mmfd.	Plates	Each
11N9539	3-15	5	.98
11N9540	4-25	9	1.03
11N9541	5-35	13	1.13
11N9542	6-50	19	1.22
11N9543	9-100	37	1.47
11N9545*	4-10	7	1.00
11N9546*	5-15	11	1.09
11N9547*	5.5-25	17	1.29
11N9548*	6-35	21	1.41

#### 2-GANG CONDENSERS

Capacities are per section.

No.	Mmfd.	Plates	Each
11N9512	3-15	5	2.04
11N9513	4-25	9	2.23
11N9514	6-50	19	2.32
11N9515	9-100	37	2.65
11N9516*	4-10	7	1.94
11N9517*	5-15	11	2.15
11N9518*	5.5-25	17	2.29
11N9519*	6-35	21	2.47

\* Double spaced.

### HAMMARLUND AIR-PADDERS

Type APC Isolantite base, soldered brass plates; 0.15" air-gap; Screwdriver adjustment. Overall dimensions 1 1/4 x 1 1/2".



No.	Cap.	Mmfd.	Each
11N8623	4 to 23	1.11	
11N8624	5 to 50	1.17	
11N8625	5.8 to 75	1.26	
11N8626	6.8 to 99	1.38	
11N8743	8.3 to 139	1.62	

### NATIONAL "NC-600" NEUTRALIZING CONDENSER

Neutralizing condenser for use with 6L6's power amplifiers and similar output tubes. Thumb screw adjustment for varying capacity from .5 to 4 mmfd. Isolantite insulation.

11N14252.....32c



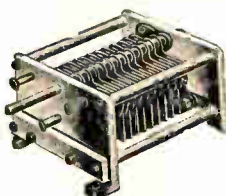
### NATIONAL "NC-800A" NEUTRALIZING CONDENSER

High voltage Disc type neutralizing condenser for RCA 800, 35T, HK54 and similar tubes. Low loss steatite insulation. Has micrometer screw adjustment. Three-hole mounting.

11N14259.....3.00



### NATIONAL "TMC" MODERATE POWER UNITS



For use with RK18, RK20, 800, 630, 203A, 210, etc. Air gap is .077"; buffed plate edges; aluminum plates and frame; Isolantite insulation; 3-hole panel mounting with bolts and spacers; flanged legs for base mounting; 1/4" shafts, 1 1/2" long; overall size: 3 3/8" wide, 2 3/8" high (except TCN).

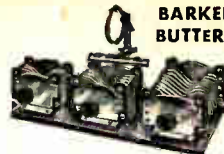
Letter D after type denotes split stator.

No.	Nat'l No. & Cap.	No. Plates	Peak Volts	Each
11N14592	TMC-50	7	3000	3.60
11N14593	TMC-100	13	3000	4.25
11N14594	TMC-150	21	3000	5.25
11N14596	TMC-300	39	3000	6.10
11N14595	TMC-100D	13-13	3000	5.95
11N14261	TCN*		6000	2.78

\* For neutralizing 203A, 852, 204A.

## Transmitting Variable Condensers

### BARKER-WILLIAMSON BUTTERFLY VARIABLES



Split stator. Ideal for medium powered triode or tetrode stage plate circuits. Stainless steel shafts, heavy rounded aluminum plates and high quality insulating materials for peak efficiency in low and medium power transmitter stages.

No.	Type	Cap. per Sec.	Max.	Min.	Lgth.	Each
11N10535	JCX100E	99	23	5 1/2	9.50	
11N10536	JCX50E	42	13	3 3/8	6.75	
11N10537	JCX25E	25	10	2 3/4	5.50	

### HEAVY-DUTY BUTTERFLIES



For use in push-pull RF amplifiers. End plate has provision for built-in neutralizing capacitors. Vacuum capacitors can be mounted on frame. High Q. 1/4" plates.

No.	Type	Mmfd.	Gap	Each
11N10528	CX40A	18-40	1/2"	19.81
11N10529	CX45B	17-45	3/8"	19.34
11N10530	CX45C	13-46	1/4"	16.72

Neutralizing Plate type N2 for 75T, 35T, 808, RK35, 852, etc. Mounts on frame. 11N10531.....4.66  
Neutralizing Plate type N3 for 801, T220, RK18, 811, 812, T55, 100TH, 250TH, etc. 11N10532.....4.66

HD Jack Bar. Mounts on stator rods. For HDVL coils. With swinging link, hdwe. 11N10533—Shipping weight 1/2 lb.....6.25  
Mounting brackets for B-W TVL or HDVL swinging link assemblies. 2 oz. 11N10534—Per Pair.....75c

### NATIONAL "UM" MIDGETS

Isolantite base 1 x 2 3/8". UMB25 has two stators, single rotor.

No.	Type	Mmfd.	Each
11N14336	UM-15	15	1.02
11N14337	UM-35	35	1.15
11N14338	UM-50	50	1.25
11N14339	UM-75	75	1.45
11N14319	UM-100	100	1.60
11N14340	UMA-25	25	1.75
11N14341	UMB-25	25-25	2.40

### NATIONAL MIDGET CONDENSERS

"ST" types 180° straight-line wave-length plates.  
"SE" types 270° rotation straight-line frequency plates. 1/4" shafts.

No.	Type	Mmfd.	Plates	Each
11N14300	STHS15	15	3	1.65
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	3.60
11N14280	SE-50	50	11	2.30
11N14282	SE-100	100	20	2.60
11N14287	SEH335	335	43	3.50
11N14476	STN*	18	7	2.07

\* For neutralizing 10, 45, 47, etc.; 3000 V.P.

### NATIONAL MINIATURES

A 1/4" shaft extension at each end is especially handy where ganging is required. Steatite base. Conducting parts silver plated.

No.	Type	Mmfd.	Each
11N14345	PSE-25	25	1.70
11N14346	PSE-50	50	1.85
11N14347	PSE-75	75	2.00
11N14348	PSE-100	100	2.15



# HEADPHONES AND ACCESSORIES



**RELIANCE DX TYPE SINGLE AND DOUBLE HEADPHONES**  
 1. Powerful bi-polar magnets, featherweight shells, adjustable cloth covered headband.

**2000-Ohm Headset**

- 15N13892—Each ..... 1.42
- 15N13894—Cap 1 1/8" Inside Diameter..... 12c
- 15N13898—Cap 1 7/8" Inside Diameter..... 12c

**3000-Ohm Headset**

- 15N13893—Each ..... 1.56
- 15N13895—Diaphragm 1 7/8" dia..... 5c
- 15N13899—Diaphragm 1 1/8" dia..... 5c

- 2. SINGLE UNIT HEADSETS.** With clock-steel band attached.
- 15N13896—1000-ohm single set. 4 1/2-ft. cord..... 90c
  - 15N13897—1500-ohm single set. 4 1/2-ft. cord..... 98c

**ACME DE LUXE LIGHTWEIGHT HEADPHONES**

1. Chrome steel magnets. Extremely light—weighs only 6 oz. complete with two units, 4 1/2-foot cord, metal headband.

- 15N13904—Double Headset. 2000 ohms DC resistance..... 1.48
- 15N13905—Single Headset. 1000 ohms DC resistance..... 95c

**BRANDES "ADMIRAL" HEADPHONES**

1. Powerful magnets. With 5 ft. cord, adjustable clips.
- 15N13928—2000 ohms..... 2.15
  - 15N13929—3000 ohms..... 2.30
  - 15N13930—5000 ohms..... 2.75



**BRANDES "SUPERIOR" HEADPHONES**

- Similar to above but with exposed screw terminals.
- 15N13925—2000 ohm Headset..... 1.99
  - 15N13936—Bakelite Cap—fits all models..... Each 18c
  - 15N13935—Aluminum Cap—fits all models..... Each 18c
  - 15N13937—Diaphragm only—fits all models..... Each 5c

**BRUSH "HUSHATONE"**

8. Small, streamlined, modern, thoroughly dependable extension loud speaker designed to end "radio irritation" in your home. Provides individual listening choice by merely slipping it under beds or sofa pillows or under the puff of a loose, pillow-back chair. Hushed tone allows listener to enjoy radio without annoying others. Hushatone is made of molded plastic with an attractive chromium trim. Compactly styled—measures only 4 3/8" in diameter and 1 1/8" thick. Loud-speaker comes complete with convenient detachable extension cord.

- 15N13911..... 9.55

See page 100 for listing of popular phone plugs.



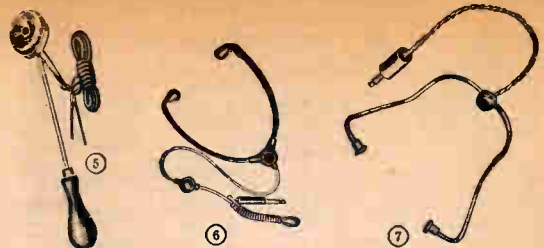
**PHONE AND SPEAKER CORDS, 4 1/2 FT. LONG**

- 10. Sturdily made, with cotton braid insulation. 4 1/2-foot long.
- 15N13955—Double type. 1 end spade tip, other straight..... } 29c
- 15N13956—Double type. Pin tips both ends..... } 29c
- 15N13957—Single type. Pin tips both ends..... 23c

**TRIMM OUTLET BOX WITH VOLUME CONTROL**

- 11. Choice of 1000 ohms, for lines up to 50 ohm impedance, or 10,000 ohms for lines up to 500 ohms. Brown or Ivory color.
- 15N13877—1000 ohms, Ivory. 15N13876—1000 ohms, Brown.
- 15N13879—10,000 ohms, Ivory. 15N13878—10,000 ohms, Brown.
- Any of above type, Each..... 2.59

- 12. HEADPHONE ADAPTER: with 18" cable for all sets.
- 15N13942—Adapter on Fibre Panel..... 1.25



**CANNON BALL "CHIEF" ALL BAKELITE PHONES**

- 1. High grade, sensitive phones in molded bakelite housings; leather covered adjustable band; 5-ft. cord. Shpg. wt. 2 lbs.
- 15N13948—2000 ohms imp..... Per Set 2.50
- 15N13949—3000 ohms imp..... Per Set 2.82

**BRUSH CRYSTAL PHONES**

- 3. Range 60 to 10,000 cps. High impedance. Light and comfortable. Padded adjustable headband. With 5 ft. cord.
- 15N13924—Crystal phones..... 7.06

**TRIMM HEADSETS**

- 4. "Dependable" Model: Economy Bakelite set. Chrom-steel magnets.
- 15N13914—2000 ohms..... 2.44
- "Professional" Model: Similar to above but 4000 ohms.
- 15N13915..... 2.94
- "Featherweight" Model: Lightweight. Only 4 oz. Bakelite shell and cap. Forged cobalt-steel magnets. Adjustable steel headband.
- 15N13919—24,000 ohms impedance.
- 15N13918—4,000 ohms impedance. Either Type..... Each 5.88
- "Commercial" Model: De Luxe super-sensitive 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 ohms impedance.
- Either Type, Each..... 9.41
- 15N13912—Same as 15N13908 but less plug..... 8.53
- 15N13938—Same as 15N13939 but less plug..... 8.53

**BRUSH CRYSTAL SINGLE UNIT HEADSET**

- 2. Metallic headband, rubber end cushion. 5 ft. cord.
- 15N13922—Crystal Single Headset..... 3.79

**BRUSH CRYSTAL LORNETTE PHONE SET**

- 5. Single phone—extends from 12" to 17". With 5 ft. cord.
- 15N13923—Lorgnette with Chrome, Black Enamel Handle..... 5.73

**TELEX MONOSET WITH TENITE TUBES**

- 6. Stethoscope type with replaceable ear pieces 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 handle.
- 15N13890—Telex Monoset less Volume Control..... 7.35
- 15N13891—Telex Monoset with Volume Control..... 9.70

**TRIMM "STETH-A-PHONE" HEADSET**

- 7. Driver unit with high impedance (2500 ohms). Stainless steel spring action "Steth-A-Tube" plus detachable plastic eartips with Neoprene flange. Miniature plug-in cord, standard phone at terminal end. Lightweight—complete unit weighs slightly over 1 ounce. Volume control inset into cord.
- 15N13872—Steth-A-Phone less Volume Control..... 6.47
- 15N13873—Steth-A-Phone with Volume Control..... 9.82



**EXTENSION CORD CONNECTOR**

- 13. Sturdy molded body with two openings, one at each end, designed for insertion of two pin tips.
- 13N13051—Extension Cord Connector..... 10c

**HEADPHONE CUSHIONS FOR ALL PHONES**

- 14. Fits all types of headphones. Made of soft rubber.
- 15N13943—Headphone Cushions, Pair.... 65c 10 Pairs for 5.85

**TELEX MINIATURE RADIO PILLOW SPEAKERS**

- 15. New, improved one-piece speaker designed for comfortable radio listening through a pillow, either in bed or in a chair. Small and compact—may be held comfortably in the palm of the hand. Coil assembly of molded polystyrene bobbin wound with heavy Formex insulated wire—won't short. Fully insulated detachable single jacket cord—5 ft. length. Speaker Dia.: 2 1/4".
- 15N13874—Pillow Speaker: 6 ohms..... 4.67
- 15N13875—Pillow Speaker: 2000 ohms..... 4.67



## "MON-KEY" ELECTRONIC MONITOR AND KEY

New electronic-timed automatic key. Sounds like a tape—sends code with perfect rhythm, timing and control. Aluminum paddle-type key gives even, clear succession of dots and dashes depending on whether key is held to left or right.



Has monitoring adjustment which produces a clear tone that may be regulated as to volume or cut off completely if desired. Speed is similarly adjustable by moving a dial setting. The sending range is approximately 8 to 40 words per minute. Contains no complicated contacts to adjust. Key controls Multivibrator which drives grid of Keying Relay tube. Relay tube controls transmitter and internal audio oscillator.

15N14050—Shipping weight 8 lbs.....**29.95**

## SPEED-X TRANSMITTING KEYS



**CODE PRACTICE SET MODEL 450**  
Constant frequency adjustable buzzer and a standard hand key with 1/8" silver contacts, mounted on a brown bakelite base 6" x 4". Uses 2—1 1/2 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.....**6 1/2c**

### BUZZER WITH BAKELITE BASE AND CAP

Model 400. Operates on 2—1V. cells or "C" battery. 15N14021—Adjustment on vibrator.

Res. 2 ohms.....**1.18**  
20N20622—1 1/2 V. cells 6 1/2c 20N19876—"C" Batt. 57c



### 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**

### MODEL 310 MANUAL KEY

Die-cast black wrinkle metal base. Silver contacts. Adjustable bearings.

15N14051—Without Switch.....**1.91**

15N14052—With Switch.....**2.20**

Model 301 for general purpose. Molded black bakelite base.

15N14040—Less Switch. Shpg. wt. 1 lb.....**1.76**

15N14044—With Switch. Shpg. wt. 1 lb.....**2.06**



### MODEL 515 HEAVY DUTY HI-SPEED KEY

Two sets of 1/8" silver contacts. Metal parts heavily plated. Black wrinkle finish, base is 3"x6 1/4"x3/8". Less switch, cord and plug.

15N14033—Shpg. wt. 4 lbs.....**7.35**

15N14054—Cord and plug.....**88c**



### MODEL 321 SENIOR KEY

Heavy duty key with pure silver contacts. Die cast, plated base and key arm. Features include adjustable steel bearings; concealed brass connector strip.

15N14039—Shpg. wt. 2 lbs.....**2.94**



### BAKELITE KEY KNOB

Brilliant black bakelite. Navy knob with disc.

15N14037.....**18c**

### BAKELITE PADDLE KEY

Flat paddle similar to those used on most speed keys.

15N14038.....**15c**

## SIGNAL TRANSMITTING KEYS



### CODE PRACTICE SET

Model R-68. Key and high frequency buzzer on polished hardwood base. 1 1/2 volt cell required (not supplied). Metal code plate on base.

15N14001—Shpg. wt. 2 lbs.....**3.82**

### TYPE R-60 FULLY ADJUSTABLE BUZZER

Has 2-ohms resistance. Black lacquer finish.

15N14006—Shpg. wt. 10 oz.....**1.32**



### PRACTICE CODE KEY

Model R-50. With cast base, black ripple finish. Coin silver contacts, heavily plated parts. Easily adjustable.

15N14009—Wt. 1 lb.....**1.40**

### KEY WITH SWITCH

M-100 Telegraph key with switch to close contacts. Lacquered brass base.

15N14017—Wt. 1 lb.....**2.90**

15N14005—Less Switch.....**2.69**

## LINGUAPHONE CODE LESSON RECORDS

Learn code this easy way at your own convenience. Slow down or speed up phono as you progress. Speed progresses from 2 to 15 words per minute. Operate on any phonograph or record player. Includes textbook and 5 double-faced 10" discs in album.

29N21895—Shpg. wt. 6 lbs.....**8.82**



## GARDINER AUTOMATIC TAPE SENDER

Model "S", with silent 110 volt AC motor. Variable code speed from 4 to 60 words per minute. Three controls: motor switch, contact switch and speed control. Terminals for oscillator or buzzer. Comes in case with 10 rolls double perforated tape.

29N14060—Postpaid in USA.....**20.00**



## ICA DELUXE SIGNA-TONE

Audio Oscillator with 3 output frequencies and a continuously variable volume control. A number of phones and keys may be connected for classroom or radio club instruction. Will follow "bug" at all speeds. With tube and self-contained speaker. For 110 V. AC-DC. 7 1/2"x4 1/2"x4".

29N14086—Shpg. wt. 4 lbs.....**11.76**



## ICA SIGNATONE CODE UNIT

Ideal code practice unit for class and radio club use with earphones or speakers. Has phone and speaker jack, 3 tone audio output continuously variable volume control. Extra terminals for key and phones. For 110 volts AC-DC.

29N14076—Shpg. wt. 3 lbs.....**8.82**

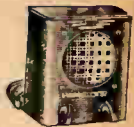


## BUD CODE PRACTICE ACCESSORIES

### CODE PRACTICE OSCILLATOR

An audio oscillator with a 4" built-in PM speaker. Operates up to twenty headphones at one time. External speaker may be plugged in without the use of an output transformer. Provided with variable volume control and variable pitch control. Any number of keys may be connected in parallel to oscillator. Black enamel finish. Size: 6 1/2"x5 1/2"x3 1/2".

29N14074—Shpg. wt. 4 lbs.....**12.25**



### KEY AND PHONES OUTLET BOX

Convenient means of terminating key and earphone connections in group or class-room practice. Outlet boxes may be placed at each operator's position and wired to the master oscillator. Keys and earphones terminated in phone plugs may be plugged into outlet box.

29N14073—Shpg. wt. 1 lb.....**1.26**



## VIBROPLEX TRANSMITTING KEYS

### "CHAMPION" VIBROPLEX

Inexpensive, yet exceptional sending qualities assure speed and ease of operation. Single lever, two pairs of contact points (one for dots and one for dashes). Bright finish parts with contrasting black base.

15N14058—Shpg. wt. 4 lbs.....**9.95**



### "ORIGINAL" VIBROPLEX

For communications work where speed and perfect Morse are essential. Single lever. Two pairs of contact points: one for dots, other for dashes. Unlimited sending possibilities. Polished parts, black base. Complete with cord and wedge.

15N14057—Shpg. wt. 5 lbs.....**15.95**



### CARRYING CASE FOR KEYS

Handsome accessory for the professional as well as the amateur. Plush-lined, black morocco carrying case. Contains reinforced corners for longer wear. Lock and key included for added protection. Overall dimensions: 6 3/4"x3 3/4"x4 1/4".

15N14059—Wt. 3 lbs.....**5.50**





# EFFICIENT LOW-LOSS INSULATORS

## JOHNSON THRU-PANEL INSULATORS



White glazed porcelain, non-hygroscopic. Specifically designed for high RF. Jack types have terminals for connection above and below panel — take standard banana plugs. All have longest possible leakage paths. Nickel-plated brass hardware.

Stock No.	Type No.	Top Ht.	Bot. Ht.	Panel Hole	Hard-ware	Cost Each
38N16736	40	1 1/4"	1/2"	1/2"	10/32	21¢
38N16737	40J	1 1/4"	1/2"	1/2"	Jack	26¢
38N16738	42	7/8"	3/8"	1/8"	10/32	18¢
38N16739	42J	7/8"	3/8"	1/8"	Jack	24¢
38N16740	44	5/8"	1/4"	1/8"	6/32	15¢
38N16741	45	1 3/8"	1 1/4"	1 1/8"	10/32	26¢
38N16742	45J	1 3/8"	1 1/4"	1 1/8"	Jack	35¢

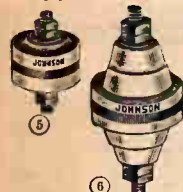
## JOHNSON STAND-OFF INSULATORS



All-purpose stand-offs of white glazed porcelain. Supplied with nickel-plated hardware as listed below.

No.	Type	Fig.	Ht.	Hard-ware	Cost Each
38N16746	22	1	1"	8/32	11¢
38N16748	22J	4	1"	Jack	14¢
38N16745	20	1	1 1/8"	10/32	12¢
38N16744	20J	4	1 1/8"	Jack	15¢
38N17024	65	3	1 3/8"	10/32	18¢
38N17025	66	2	2 3/4"	1/4-20	41¢
38N17026	67	2	4 1/2"	1/4-20	50¢

## JOHNSON LEAD-IN BUSHINGS

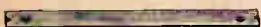


For use where insulated mountings are needed. Type A of white glazed porcelain. Type B of Alsimag 196. All have long leakage path. Cushion washers and necessary hardware furnished.

Cat. No.	Type No.	Fig.	Ht.	Dia.	Lth.	Each	Cost
38N17020	50	6	1/2"	3/4"	2"	21¢	
38N17021	51	6	1 1/8"	1 1/4"	2 1/2"	29¢	
38N17022	52	6	1 3/8"	1 3/4"	4 1/4"	47¢	
38N17023*	55	5	1/4"	3/4"	1 1/4"	18¢	

\* Made of Alsimag 196.

## JOHNSON FEEDER SPREADERS



Silicone impregnated unglazed porcelain — ideal for receiver and transmitter lead-ins. Cross section 3/8 in. x 1/2 in.

38N17027	—2" Long.	Each	10¢
38N17028	—4" Long.	Each	14¢
38N17029	—6" Long.	Each	18¢

## BIRNBACH

### X-MITTER LEAD-IN INSULATORS



Glazed porcelain 2 3/4" high. With hardware and washers for watertight seal.

No.	Rod	Bushing	Each
38N17037	10"	Metal	1.03
38N17038	15"	Metal	1.18
38N17039	10"	Porcelain	1.32
38N17040	15"	Porcelain	1.68

## JOHNSON CONES



Made of ultra steatite insuring minimum loss at high frequencies. Threads tapped directly into ceramic. Ideal for mtg. condensers, coils, tube sockets, other HF apparatus. Complete with mtg. hardware.

No.	Ht.	B. Dia.	Thread	Each
38N17005	5/8"	5/8"	6/32	18¢
38N17006	1"	3/4"	8/32	21¢
38N17007	1 1/2"	1"	8/32	38¢
38N17008	2"	1 1/8"	10/32	44¢

We supply all Johnson products not listed here, at standard discounts from list price.

## NATIONAL

### STEATITE STAND-OFFS

1 3/8" high, 1 1/8" centers. GS-8 has nut and bolt hardware, GS-9 has jack top for banana plug.



38N14486	—GS-8	54¢
38N14487	—GS-9	75¢

### ISOLANTITE PLUG AND SOCKET



For use with XR-16 coil forms.

38N14614	45¢
PB-16 Plug	
38N14615	
XB-16 Socket	45¢

### STEATITE "CONES"

GS-6 and GS-7 tapped 10/32; all others tapped 8/32.



No.	Type	Ht.	Ea.
38N14493	GS-10	3/4"	9¢
38N14483	GS-5	1 1/4"	30¢
38N14484	GS-6	2"	42¢
38N14485	GS-7	3"	75¢

### NATIONAL ISOLANTITE STAND-OFFS

Metal mounted top, bottom. Ideal for r.f. choke cores.



No.	Type	Dia.	Tt.	Ea.
38N14479	GS-1	1/2"	1 3/8"	24¢
38N14480	GS-2	1/2"	2 7/8"	30¢
38N14481	GS-3	3/4"	2 7/8"	60¢
38N14482	GS-4	3/4"	4 7/8"	75¢
38N14475	GS4A	3/4"	6"	1.05

### STRAIN INSULATOR

A 1 1/2" glazed porcelain strain insulator for antenna guy wires.



38N17175	—Each	5¢
	10 For	40¢

### ICA STAND-OFF INSULATORS

Made of white glazed insulex.



38N16730	—1" high	7¢
38N16731	—1 3/8" high	9¢
38N16732	—1 3/4" high	11¢

### MILLEN STAND-OFFS

Quartz Q, a highly polymerized styrene. Remarkably low R.F. losses. High resistance to voltage breakdown. Fitted metal tops. Ideal for low-loss forms.



No.	Type	Dia.	Lth.	Ea.
38N8008	30001	1/2x1 3/8"		15¢
38N8009	30002	1/2x2 7/8"		21¢
38N8010	30003	3/4x2 7/8"		55¢
38N8011	30004	3/4x4 7/8"		65¢

### MILLEN FEED-THROUGH BUSHING



Small isolantite unit. With lead shoulder for 1/4" hole. In pkgs. of 5.

38N7999	—Pkg	25¢
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## AMPHENOL

### "912-A" POLYSTYRENE RODS



Expertly molded from pure low-loss polystyrene. Available in 12" lengths for machining special coil forms and low loss parts.

38N8067	—1/4" dia. x 12" L.	8¢
38N8068	—3/8" dia. x 12" L.	17¢
38N8069	—1/2" dia. x 12" L.	30¢
38N8070	—1" dia. x 12" L.	1.26

### SMOOTH COIL FORMS



Special value for servicement Blank bakelite forms, suitable for winding coils to any specification you require. 4, 5, and 6 prong types.

29N10060	—4 prong type.	
29N10061	—5 prong type.	
29N10062	—6 prong type.	

Any Above, Each 21¢

## AMPHENOL "912-A" SHEETS

Similar to 912-B sheets, but made of low-loss polystyrene instead of acrylic. Has low RF loss.

No. Dimensions Ea.

38N8025	4x8x1/4"	16¢
38N8028	4x8x3/8"	20¢
38N8026	4x8x1/8"	24¢
38N8027	4x8x1/4"	39¢



## AMPHENOL "912-B" SHEETS

Strong, clear flexible material (Acrylic) for high frequency, RF or high voltage work. Does not deteriorate with age and will not discolor. Absorbs little moisture — water content only .8%. Can be cut, drilled, machined, etc. May be shaped when submitted to heat.

No.	Dimensions	Each
38N8035	12x16x1/8"	2.35
38N8036	12x16x1/4"	4.70
38N8037	12x16x3/8"	6.88
38N8071	6x 8x1/8"	.59
38N8072	8x 8x1/8"	1.18
38N8073	6x 8x3/8"	1.73

## AMPHENOL "912-A" TUBING

Polystyrene tubes 12" long with 1/8" wall thickness. For coil forms. Extremely low RF loss.



No.	Diameter	Each
38N8029	1/8"	9¢
38N8030	3/8"	11¢
38N8031	5/8"	19¢
38N8032	1 1/4"	14¢
38N8033	3/4"	23¢
38N8034	1"	30¢

## AMPHENOL "912-B" STRIPS

A synthetic resin having transparency greater than most glass and with good insulation characteristics. Can be shaped (when heated), drilled, cut, etc. For coil supports, line spreaders, trimmer bases or binding post or tip jack mounting strips. 12" long strips.

No.	Width	Thickness	Each
38N8066	1"	1/8"	.30
38N8085	1/2"	1/4"	.22
38N8086	1"	1/8"	.37
38N8087	1/2"	1/4"	.30
38N8088	1"	1/4"	.53
38N8089	1/2"	1/2"	.58
38N8090	1"	1/2"	1.04
38N8064	1/2"	1/8"	.18

## AMPHENOL MINIATURE POLYSTYRENE FORMS, SOCKETS



Undrilled. 3/4" dia., 1 1/8" long. Permanent mtg. form has raised hole in center for self tapping screws. Plug-in sockets fit Hytron Bantam Jr. tubes.

29N11577	—Permanent Mtg.	10¢
29N9629	—6 Prong Form	28¢
13N13162	—6 Contact Socket	17¢

## RELANCE RIBBED COIL FORMS



Made of high quality low-loss bakelite. Ribbed for air-spaced winding. Knurled flanges for ease in handling, grooved for wave band index. Eight ribs.

### Medium Size

Undrilled. 1 1/8" diameter. 3 5/8" high.	
29N9630	—4-Prong
29N9631	—5-Prong
29N9632	—6-Prong

### Small Size

Undrilled. 1 1/8" diameter. 2 1/4" high.	
29N9988	—4-Prong
29N9989	—5-Prong
29N9990	—6-Prong



# TUBES—TRANSMITTING, SPECIAL, GENERAL

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

G-E monogram tubes are manufactured with the most modern high-precision equipment, and are pre-tested to insure long trouble-free service. A written warranty further assures you of full dollar value from every G-E tube you purchase and install.

RCA			GE		
No.	Each	Type	No.	Each	Type
36N24797	2.20	OA2	36N24566	1.35	
36N24798	1.35	OA3/VR75			
36N24799	1.25	OA4G	36N24568	1.20	
		OB3/VR90			
36N24801	1.35	OC3/VR105	36N24569	1.35	
36N24802	1.30	OD3/VR150	36N24570	1.30	
36N24803	2.45	1C21			
36N24804	13.60	2C40	36N24572	14.50	
36N24805	10.30	2C43	36N24573	11.00	
36N24806	2.00	2D21	36N24574	2.00	
36N24807	5.10	2E24	36N24575	5.10	
36N24808	3.85	2E26	36N24576	3.85	
36N24809	3.15	2V3G			
36N24810	2.05	2X2A/879	36N24578	2.05	
36N24811	6.40	3B25			
36N24812	12.00	3C23	36N24580	12.50	
36N24813	13.25	3D22			
36N24814	27.50	4-125A/4D21	36N24582	27.50	
36N24815	1.50	5R4GY	36N24583	1.50	
36N24816	1.75	6AG7Y			
36N24817	1.80	6AK5			
36N24818	8.05	6J4			
36N24886	159.50	7C24			
36N24819	1.95	10Y			
36N24820	13.75	203A	36N24588	13.75	
36N24885	115.00	204A			
36N24821	12.00	211	36N24589	13.75	
36N24822	3.75	801A	36N24590	3.75	
36N24823	4.75	802	36N24591	4.75	
36N24824	13.50	805	36N24592	13.50	
36N24825	2.50	807	36N24593	2.50	
36N24826	10.75	808			
36N24827	4.00	809	36N24595	4.00	
36N24828	14.50	810	36N24596	14.50	
36N24829	3.30	811	36N24597	3.30	
36N24830	4.05	812A	36N24598	4.05	
36N24831	16.00	813	36N24599	16.00	

## G.E. 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	Each
36 N 24776	GL-415	44.00
36 N 24777	FG-271	73.50
36 N 24778	FG-235A	110.00
36 N 24779	FG-258A	241.00

### Phototubes

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

No.	G-E Type	Each
36 N 24780	PJ-22	2.20
36 N 24781	PJ-23	2.50
36 N 24782	FJ-401	2.95
36 N 24783	GL-441	4.50

### Thyrotrons

Grid-controlled gaseous discharge rectifier tubes with one or more grids to control the starting of the plate current. Will run D-C motors directly from A-C lines. Will hold desired motor speed constant.

No.	G-E Type	Each
36 N 24784	FG-97	22.00
36 N 24785	FG-17	7.00
36 N 24786	FG-27A	21.00
36 N 24787	FG-33	21.00
36 N 24788	FG-57	19.50
36 N 24789	FG-95	23.00
36 N 24790	FG-105	48.00
36 N 24791	FG-172	50.00

## NATIONAL GRID CLIPS

Easily removed. Tinned grip end for soldering. For transmitting tubes, 866, T20, 809, 812, etc.  $\frac{1}{8}$ " diameter.

29N14441	.....	6c
Ceramic safety grip $\frac{1}{8}$ " diameter for 866, T20, 809, 812 etc.		
29N14598	.....	21c
29N14599	.....	21c
Ceramic safety grip $\frac{3}{16}$ " diameter for 807, etc.		
29N14599	.....	21c

RCA			GE		
No.	Each	Type	No.	Each	Type
36N24832	14.25	814	36N24600	14.25	
36N24833	6.90	815	36N24601	6.90	
36N24834	1.30	816	36N24602	1.30	
36N24835	12.50	826	36N24603	12.50	
36N24836	13.75	828	36N24604	13.75	
36N24837	16.25	829B	36N24605	16.25	
36N24838	11.75	832A	36N24606	11.75	
36N24887	49.50	833A			
36N24839	4.75	837	36N24607	4.75	
36N24840	4.35	841			
36N24888	2.30	843			
36N24841	13.75	845	36N24609	13.75	
36N24889	138.00	849			
36N24890	209.00	857B			
36N24891	11.50	865			
36N24842	1.95	866A	36N24610	1.95	
36N24843	2.50	868	36N24611	2.50	
36N24844	8.20	872A	36N24612	8.20	
36N24845	12.75	875			
36N24846	1.85	884	36N24614	1.85	
36N24847	2.00	885	36N24615	2.00	
36N24848	3.50	917	36N24616	3.50	
36N24849	2.85	918	36N24617	2.85	
36N24850	3.50	919	36N24618	3.50	
36N24851	4.15	920	36N24619	4.15	
36N24852	1.95	921	36N24620	1.95	
36N24853	1.95	922	36N24621	1.95	
36N24854	2.05	923	36N24622	2.05	
36N24855	2.15	925			
36N24856	2.90	926			
36N24857	2.50	927	36N24625	2.50	
36N24858	1.75	929	36N24626	1.75	
36N24859	1.65	930	36N24627	1.65	
36N24860	9.75	931A	36N24628	9.75	
36N23861	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			

## TAYLOR GENERAL PURPOSE TUBES

No.	Type	Watts Diss.	Each
36 N 24721	T-20	20	2.75
36 N 24722	TUF-20	20	5.50
36 N 24723	TZ-20	20	2.75
36 N 24724	T-21	21	1.95
36 N 24725	TB-35	35	10.00
36 N 24726	T-40	40	3.95
36 N 24727	TZ-40	40	3.95
36 N 24728	T-55	55	6.50
36 N 24729	T-125	125	13.50
36 N 24730	T-200	200	21.50
36 N 24731	203-A	100	12.00
36 N 24732	203-Z	65	9.00
36 N 24733	803	125	21.00
36 N 24734	822	200	18.50
36 N 24735	866A/866		1.75
36 N 24736	866 Jr.		1.25

## HYTRON TUBES

No.	Type	Each
36 N 24740	OA2	2.20
36 N 24741	OB2	2.30
36 N 24742	2E25	5.50
36 N 24743	2E30	2.45
36 N 24744	HY24	1.50
36 N 24745	HY31Z	5.50
36 N 24746	HY69	5.50
36 N 24747	HY75A	4.70
36 N 24748	HY114B	2.25
36 N 24749	HY615	2.25
36 N 24750	801A	3.75
36 N 24751	807	2.50
36 N 24752	816	1.30
36 N 24753	866A/866	1.95
36 N 24754	HY1231Z	5.50
36 N 24755	HY1269	5.50
36 N 24756	15514	4.95
36 N 24757	5516	5.95

\*Replaces type 866 Jr.  
†Replaces type HY30Z, 40, 40Z, 51A, 51B, and 51Z.

## HEAT RADIATING GRID AND PLATE CAPS

Use at terminals of transmitting tubes. Protects glass.	
36N14377—For HK-24	35c
36N14378—For 35-T, HK-54	35c
36N14381—For 100-T, 807	59c
36N14388—For 866, T-125	59c

RCA			GE		
No.	Each	Type	No.	Each	Type
36N24866	7.40	1603	36N24834	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	4.00	
36N24872	2.65	1625	36N24640	2.65	
36N24873	1.85	1626			
36N24874	1.40	1629	36N24642	1.40	
36N24875	2.90	1851	36N24643	2.90	
36N24876	1.85	2050	36N24644	1.85	
36N24877	1.90	2051	36N24645	1.90	
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	
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-GE CATHODE RAY TUBES

Post-war tubes. Incorporate all the recent improvements in materials and design.

RCA			GE		
No.	Each	Type	No.	Each	Type
36N24905	10.55	2AP1A	36N23673	10.55	
36N24906	9.60	2BP1			
36N24907	14.25	3AP1A	36N24675	14.25	
36N24908	14.50	3KP1			
36N24909	22.50	5BP1A	36N24677	22.50	
36N24910	23.25	5CP1A	36N24678	23.25	
36N24913	17.75	5UP1			
36N24914	30.75	7CP1			
36N24898	35.25	7CP4			
36N24920	15.50	913			
36N24921	47.50	5527			

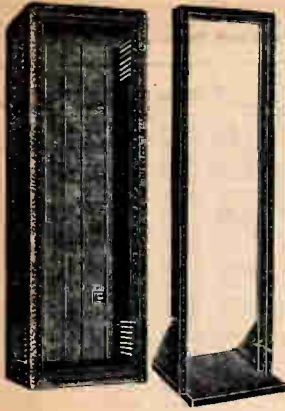
## EIMAC POWER TUBES

For efficiency, long life, and performance.

No.	Type	Each
36 N 24700	3X2500A3	180.00
36 N 24701	4-65A	14.50
36 N 24702	4-125A	27.50
36 N 24703	4X150A	34.00
36 N 24704	4-250A	37.50
36 N 24705	4X500A	97.50
36 N 24706	3C24/24G	



# STURDY RACKS, PANELS & CABINETS



**STEEL CHANNEL RACKS**  
For standard 19" long panels. Universally drilled. Base 16x20". Of 1/8" steel with spot-welded corners. Holes tapped for 10-32 screws. Black ripple. 73 1/4" high, 7 1/4" panel space.

24N22150—Wt. 85 lbs.. **17.64**  
38 1/4" high, 36 3/4" panel space.

24N22151—Wt. 57 lbs.. **14.70**

## ENCLOSED RACKS

Deluxe all-steel enclosed racks, streamlined and finished in slate gray with stainless steel trimming at top and bottom. (Black ripple also available—specify on order.) Universally drilled for all standard panels. Panel width 19". Models are 22 1/2" wide, 16 1/2" deep. Hinged back, 2 locks on rear door. Shipped flat.

Stock No.	Height In.	Panel Space	Weight, Lbs.	Cost Each
24N22145	42"	36 3/4"	100	29.40
24N22146	66 1/2"	61 1/4"	150	43.61
24N22148	82 1/4"	77"	175	50.40

## 1/16" STEEL TABLE RACKS

Universal drilling accommodates all standard panels. Tapped for 10-32 screws. 25" high rack has panel space 21x19"; 32" high rack has panel space 28x19". Both 20" wide, 12" deep. Black ripple finish.

24N22102—25". Wt. 33 lbs..... **5.29**

24N22103—32". Wt. 36 lbs..... **6.76**

## MASONITE AND BAKELITE RADIO PANELS

TEMPERED MASONITE: non-magnetic. Panels 3/16" thick. Black Ripple finish. FINE GRADE BAKELITE: Suitable for test instruments, etc. Black. 3/16" thick.

### Masonite Panels

Size	Wts.	Stock No.	Each	Stock No.	Each
7x10"	3/4 lb.	24N22280	.59	24N19600	1.32
7x12"	1 lb.	24N22281	.65	24N19601	1.62
7x14"	1 lb.	24N22282	.73	24N19602	1.91
7x18"	1 lb.	24N22283	.88	24N19603	2.41
7x21"	1 1/2 lbs.	24N22279	.97	24N19604	2.73
7x24"	1 1/2 lbs.			24N19605	3.23
7x30"	2 lbs.			24N19608	3.97

### Bakelite Panels

## STEEL CABINETS FOR RACK PANELS

- Standard Mounting
- Built-in Louvers
- Black Ripple Finish

Heavy-duty cabinets built of 1/16" steel, finished in Black Ripple. Welded construction, streamlined design. Neatly rounded corners. Universally drilled to fit all standard 19" rack panels. All have louvers, hinged doors with snap locks, and take chassis 13" deep. Also available in slate Gray finish on special order.

## DE LUXE STEEL CABINETS

Listings below give overall dimensions only. Black ripple finish.

Stock No.	Dimensions	Weight	Cost
24N22188	10 1/2 x 21 x 13 1/2"	8 3/4 x 19"	22 lbs. 9.70
24N22071	14 x 21 x 13 1/2"	12 1/4 x 19"	Top Only 29 lbs. 11.76
24N22191	19 1/2 x 21 x 13 1/2"	17 1/2 x 19"	Top & Rear 34 lbs. 16.32
24N22198	28 x 21 x 13 1/2"	26 1/4 x 19"	Rear Only 69 lbs. 18.82
24N22199	36 3/4 x 21 x 13 1/2"	35 x 19"	Rear Only 73 lbs. 20.87

## CHROME VENTILATING LOUVRES

Sure to add a distinctive touch to any receiver, amplifier, transformer, or any other installation.

Polished, chrome-finished steel "Air-Gate" made up of 5 ventilating louvers. Air space between louver plates: 5/16". Distance between mounting hole centers: 4-27/32". Diameter of holes: 5/32". Length of louvers: 4 1/4". Size: 5-7/16x3". **53c**

## PORTABLE STEEL CABINETS

For oscillators, transceivers, etc. Removable front and back panels. Leather handle. Black ripple finish.

24N22273—Size: 12x7 3/4x7" .... **2.50**  
24N22274—Size: 15x7 3/4x7" .... **2.91**



## MASONITE RELAY RACK PANELS

1. Same as panels listed below but with amateur standard notching.

No.	Size	Cost	No.	Size	Cost
24N22267	1 3/4 x 19"	.50	24N22284	8 3/4 x 19"	1.18
24N22268	3 1/2 x 19"	.65	24N22285	10 1/2 x 19"	1.32
24N22269	5 1/4 x 19"	.85	24N22286	12 1/4 x 19"	1.47
24N22277	7 x 19"	.94			

## HEAVY STEEL AND ALUMINUM RACK PANELS

2. Heavy duty 1/8" steel or aluminum panels for all standard 19" racks. Available with either Black ripple or commercial slate Gray ripple finishes. For prompt delivery, order aluminum.

### Aluminum Rack Panels

### Steel Rack Panels

Ht. In.	Black No.	Gray No.	Wt. Lbs.	Black No.	Gray No.	Wt. Lbs.	Cost Each
1 3/4	24N22104	24N22116	1	24N22169	24N22118	2	.65
3 1/2	24N22105	24N22117	1	24N22170	24N22119	5	.73
5 1/4	24N22106	24N22270	2	24N22171	24N22120	7	.85
7	24N22107	24N22271	2	24N22160	24N22121	8	.91
8 3/4	24N22108	24N22289	3	24N22161	24N22122	9	1.15
10 1/2	24N22109	24N22290	3	24N22162	24N22123	10	1.29
12 1/4	24N22110	24N22293	4	24N22163	24N22124	12	1.59
14	24N22111	24N22294	4	24N22164	24N22125	13	1.82
15 1/2	24N22112	24N22295	5	24N22165	24N22126	14	2.12
17 1/2	24N22113	24N22296	5	24N22166	24N22127	15	2.26
19 1/4	24N22114	24N22297	6	24N22167	24N22128	16	2.43
21	24N22115	24N22298	7	24N22168	24N22129	17	2.76

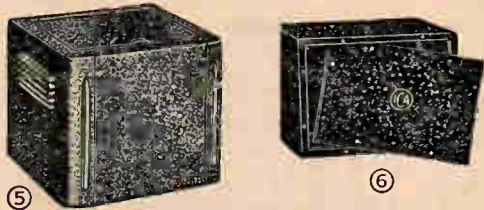
## 1/16" STEEL PANELS

3. For all radio applications. Handsome black wrinkle finish.

No.	Size	Wt.	Each	No.	Size	Wt.	Each
24N22218	7x10"	2 lbs.	47c	24N22220	7x14"	3 lbs.	71c
24N22219	7x12"	2 lbs.	53c	24N22221	7x18"	4 lbs.	81c

## 1/16" STEEL MOUNTING BRACKETS

4. Panels must be at least 7" high. Mounting holes drilled.  
24N15271—Black Ripple Finish. Base Size: 8" ..... Pair 68c  
24N15272—Black Ripple Finish. Base Size: 11" ..... Pair 1.00  
24N15269—Black Ripple Finish. Base Size: 13" ..... Pair 1.21



## DE LUXE HINGED STEEL CABINETS

5. Attractive streamlined cabinets, with full-length piano hinged top and removable front panel. Slate gray finish with chrome trim moulding, ventilators on side. All without chassis.

No.	H. L. D.	Panel	For Chassis	Each
24N22087	8x10x 8"	8x 8"	7x 7x2"	4.26
24N22088	8x12x 8"	8x10"	7x 9x2"	4.41
24N22089	8x14x 8"	8x12"	7x13x2"	5.29
24N22091	12x20x12"	12x18"	10x17x3"	8.23

## STANDARD HINGED STEEL CABINETS

Similar to above, less chrome trim with ventilating louvers.

No.	Dimen.	Panel Size	Each
24N22200	8x10x 8"	8x 8"	2.94
24N22201	8x12x 8"	8x10"	3.23
24N22202	8x14x 8"	8x12"	4.12
24N22203	12x20x12"	12x18"	7.64

## GENERAL UTILITY STEEL CABINETS

6. Streamlined, sturdily made steel cabinets designed for use in radio or other allied fields. All are made of sheet steel, constructed with spot welded re-inforced corners. Tops and bottoms are easily removable and held firmly in place by means of self-tapping screws which are included with the cabinets. Handsome Black ripple finish gives a neat, efficient appearance. Available in 10 sizes to fit all requirements.

No.	Size	Shpg. Wt.	Each
24N22209	4x 2x 4"	2 lbs.	.76
24N22210	4x 3x 5"	3 lbs.	.82
24N22214	6x 6x 6"	3 lbs.	.97
24N22175	9x 5x 6"	5 lbs.	1.47
24N22173	10x 8x 7"	6 lbs.	1.85
24N22176	10x 8x10"	7 lbs.	2.35
24N22177	11x12x 8"	9 lbs.	2.53
24N22181	12x 7x 6"	5 lbs.	1.82
24N22182	15x 9x 7"	10 lbs.	2.56





### ICA SLOPING PANEL STEEL CABINETS

Serve as speaker cabinets, oscillator cases, monitors, teletalk systems, etc. Rounded corners. Marine gray finish.

- 24N22097—(1) Dimensions:  $4\frac{1}{4} \times 4\frac{1}{2} \times 4\frac{1}{4}$ ". Shpg. wt. 2 lbs. **1.26**  
 24N22098—(2) Dimensions:  $7\frac{1}{2} \times 4\frac{1}{2} \times 4\frac{1}{4}$ ". Shpg. wt. 5 lbs. **2.26**

### ICA DELUXE METER CASES

3. For 2" and 3" meters. Marine gray ripple finish, chrome trim.

- 24N22080— $4\frac{1}{4} \times 4\frac{1}{2} \times 4\frac{1}{4}$ ". Meter Hole  $2\frac{1}{8}$ ". **1.32**  
 24N22081— $4\frac{1}{4} \times 4\frac{1}{2} \times 4\frac{1}{2}$ ". Meter Hole  $2\frac{1}{8}$ ". **1.32**



### STANDARD SPEAKER CABINETS

4. Louvred back cover with slots for wall hanging. Made of durable sheet steel with black ripple enamel finish.

- 24N22140—6" Speaker. Cabinet Size:  $10 \times 10 \times 6$ ". Wt. 8 lbs. **3.00**  
 24N22141—8" Speaker. Cabinet Size:  $12 \times 12 \times 7$ ". Wt. 9 lbs. **3.53**  
 24N22142—10" Speaker. Cabinet Size:  $14 \times 14 \times 8$ ". Wt. 15 lbs. **4.70**  
 24N22143—12" Speaker. Cabinet Size:  $16 \times 16 \times 8$ ". Wt. 20 lbs. **6.31**

### SLOPING FRONT CABINETS

5. Front panel removable. Rear openings for leads and ventilation. Slate gray ripple finish with red-stripped trim. Less chassis.

- 24N22092—8x8x8" For Chassis 7x7x2". Wt. 9 lbs. **3.88**  
 24N22093—8x10x8" For Chassis 7x9x2". Wt. 10 lbs. **4.26**  
 24N22094—8x14x8" For Chassis 7x13x2". Wt. 11 lbs. **5.59**  
 24N22096—12x18x12" For Chassis 10x17x3". Wt. 17 lbs. **7.50**

### CHROME HANDLES TO FIT ALL INSTALLATIONS

6. For cabinets, amplifiers, chassis, etc. Mtg. screws included.

- 24N14563— $5\frac{1}{4}$ " Long Chrome Handles. Mtg. Centers  $4\frac{1}{2}$ ". **1.44c**  
 24N14562—4" Long Chrome Handles. Mtg. Centers  $2\frac{3}{4}$ ". **1.44c**



### AMPLIFIER CHASSIS AND COVERS

7. Chassis stamped from 1-pc. cold rolled steel, have black ripple finish. 6" deep covers are slate gray. 3" high chassis drilled for bottom plates (not supplied). Deluxe models similar to standard, but include chromium molding and handles.

#### Standard Models

No.	Size	Wt.	Each	No.	Size	Wt.	Each
24N22132	$5\frac{1}{2} \times 10 \times 9$ "	9 lbs.	2.20	24N22183	$5\frac{1}{2} \times 10 \times 9$ "	9 lbs.	3.62
24N22138	$8 \times 12 \times 9$ "	10 lbs.	3.23	24N22139	$8 \times 12 \times 9$ "	11 lbs.	4.70
24N22135	$7 \times 17 \times 9$ "	11 lbs.	3.38	24N22185	$7 \times 17 \times 9$ "	11 lbs.	4.85
24N22136	$10 \times 14 \times 9$ "	11 lbs.	3.67	24N22186	$10 \times 14 \times 9$ "	11 lbs.	5.29
24N22137	$10 \times 17 \times 9$ "	13 lbs.	3.82	24N22187	$10 \times 17 \times 9$ "	13 lbs.	5.59

#### Deluxe Models

### DELUXE STEEL SLOPING AMPLIFIER UNITS

8. Bases have chrome trimmed handles; top covers have chrome plated "air gate" ventilators. Louvres on sides and back. Rounded corners. Marine gray finish.

No.	Overall	Base Ht.	Bottom	Slope	Wt.	Each
24N22131	$7 \times 17 \times 9\frac{1}{2}$ "	$3\frac{1}{2}$ "	$10 \times 17$ "	4"	14 lbs.	6.03
24N22134	$10 \times 14 \times 9\frac{1}{2}$ "	$3\frac{1}{2}$ "	$13 \times 14$ "	4"	14 lbs.	6.47
24N22147	$10 \times 17 \times 9\frac{1}{2}$ "	$3\frac{1}{2}$ "	$13 \times 17$ "	4"	16 lbs.	6.76

### ICA SUPER STREAMLINED AMPLIFIER CHASSIS

9. Sloping front panel and streamline top cover. Front panel is removable and extends 3" from face of screen top. Finished in marine gray ripple, chrome metal trim. Top cover  $6\frac{1}{2}$ " high. With bottom plates, less chassis.

No.	Chassis Size	Cost
24N22195	$10 \times 12 \times 3$ "	5.88
24N22196	$10 \times 17 \times 3$ "	6.76
24N22197	$13 \times 17 \times 3$ "	7.64



## FOUNDATION CABINETS, CHASSIS

### PIONEER SCREW ACTION SQUARE HOLE PUNCH



New self-aligning chassis punch with die-shearing action. Operates on screw principle for punching power. Takes several full cuts or nibbles to enlarge first square hole to size desired. Cuts square or angular holes. Of high grade tool steel.

- 18N15076— $\frac{3}{8}$ " Square Hole Punch..... **2.89**  
 18N15077— $\frac{3}{4}$ " Square Hole Punch..... **3.43**

### GREENLEE SCREW ACTION PUNCHING TOOLS

Cut clean accurate holes for sockets, plugs, etc. Only necessary to drill  $\frac{3}{8}$ " or  $\frac{1}{2}$ " hole to fit  $\frac{3}{8}$ " capscrew;  $\frac{3}{4}$ " or larger to fit  $\frac{3}{4}$ " capscrew. Complete with punch, die for metal, and capscrew.



- 18N15129— $\frac{1}{2}$ " cplt. 18N15131— $\frac{3}{4}$ " cplt. } **Each 1.94**  
 18N15130— $\frac{3}{8}$ " cplt. 18N15132— $\frac{7}{8}$ " cplt. }  
 18N15134—Screw for  $\frac{3}{8}$ " and  $\frac{1}{2}$ " punches } **Each 23c**  
 18N15135—Screw for  $\frac{3}{4}$ " and  $\frac{7}{8}$ " punches }  
 18N15136—1" Complete..... 2.12 18N15140— $1\frac{1}{2}$ " Complete..... 2.25  
 18N15137— $1\frac{1}{4}$ " Complete..... 2.25 18N15141— $1\frac{1}{4}$ " Complete..... 2.25  
 18N15138— $1\frac{1}{8}$ " Complete..... 2.25 18N15142— $1\frac{3}{8}$ " Complete..... 2.57  
 18N15139— $1\frac{1}{2}$ " Complete..... 2.25 18N15143— $1\frac{1}{2}$ " Complete..... 2.88  
 18N15118—Screw for 1" to  $1\frac{1}{2}$ " inclusive..... **23c**  
 18N15146— $2\frac{1}{4}$ " Complete..... **5.58**  
 18N15147—Screw for  $2\frac{1}{4}$ " punch..... **45c**

### MILLEN QUARTZ "Q" SHEET NO. 55001



10. For panels, insulation, etc. Drills, cuts rapidly. Highly polymerized styrene with low R.F. loss.

- 11N8024—Size:  $3 \times 8\frac{1}{2}$ ".  $1/10$ " thick.. **45c**



### ALL-PURPOSE SHEARING PUNCH

11. Cuts holes of any size or shape on any size surface. Needs only hammer. May be used in punch press.

- 18N15067—Shearing Punch..... **9.70**



### ICA STEEL AND ALUMINUM CHASSIS

12. 4 solid sides, welded corners. Bottom edges flanged in and drilled for plates. Steel chassis No. 20 gauge with black ripple finish; Aluminum chassis .055" thick. Unfinished.

Size	No.	Steel	Each	No.	Aluminum	Each
D. L. H.						
$5 \times 9\frac{1}{2} \times 1\frac{1}{2}$ "	24N22211		.67	24N22237		.76
$7 \times 7 \times 2$ "	24N22212		.82	24N22238		.95
$7 \times 9 \times 2$ "	24N22213		.88	24N22239		1.06
$7 \times 11 \times 2$ "	24N22214		.97	24N22243		1.14
$7 \times 13 \times 2$ "	24N22215		1.06	24N22244		1.22
$7 \times 15 \times 3$ "	24N22216		1.26	24N22245		1.47
$7 \times 17 \times 3$ "	24N22217		1.26	24N22246		1.47
$10 \times 12 \times 3$ "	24N22226		1.38	24N22247		1.64
$10 \times 17 \times 3$ "	24N22227		1.29	24N22248		1.79

### ICA BLACK RIPPLE STEEL BOTTOM PLATES

With holes to match steel chassis above. Pressed corner "bumpers."

No.	Size	Wt. Cost	No.	Size	Wt. Cost
24N22228	$5 \times 9\frac{1}{2}$ "	1 Lb. .38	24N22258	$7 \times 15$ "	2 Lbs. .62
24N22233	$5\frac{1}{2} \times 10$ "	1 Lb. .41	24N22260	$7 \times 17$ "	2 Lbs. .65
24N22241	$7 \times 7$ "	1 Lb. .44	24N22261	$8 \times 12$ "	2 Lbs. .65
24N22242	$7 \times 9$ "	1 Lb. .44	24N22265	$10 \times 12$ "	2 Lbs. .68
24N22249	$7 \times 11$ "	1 Lb. .53	24N22262	$10 \times 14$ "	3 Lbs. .71
24N22256	$7 \times 13$ "	2 Lbs. .56	24N22266	$10 \times 17$ "	3 Lbs. .82

### STEEL CHASSIS WITH BOTTOM COVER PLATES

Heavy-duty 1-pc.  $1/16$ " steel. Reinforced corners. Ends drilled to fit standard mounting bracket. Black wrinkle finish.

No.	W. L. D.	Lbs. Ea.	No.	W. L. D.	Lbs. Ea.
24N22155	$8 \times 17 \times 2$ "	9 2.18	24N22156	$11 \times 17 \times 3$ "	12 2.85
24N22229	$8 \times 17 \times 3$ "	10 2.47	24N22230	$13 \times 17 \times 2$ "	13 3.94
24N22231	$11 \times 17 \times 2$ "	11 2.59	24N22232	$13 \times 17 \times 3$ "	14 3.18

### BLANK METAL CHASSIS BASES

13. All-purpose, undrilled bases. May be used for receivers, transmitters, amplifiers, etc. All constructed with reinforced spot welded corners for extra strength. Two types available: Steel, plated with lead or zinc, and Black wrinkle finish steel. Only sizes shown below are available.

Dimensions	Wt. Lbs.	Plated Steel No.	Each	Black Wrinkle No.	Each
$5 \times 9\frac{1}{2} \times 1\frac{1}{2}$ "	3	24N22299	.54	24N22306	.56
$5\frac{1}{2} \times 10 \times 3$ "	3	24N22300	.72	24N22307	.74
$7 \times 7 \times 2$ "	3	24N22301	.67	24N22305	.69
$7 \times 9 \times 2$ "	3	24N22325	.72	24N22251	.74
$7 \times 11 \times 2$ "	3	24N22326	.78	24N22308	.80
$7 \times 12 \times 3$ "	4	24N22302	.90	24N22309	.92
$7 \times 13 \times 2$ "	4	24N22327	.86	24N22252	.88
$7 \times 17 \times 3$ "	5	24N22303	1.06	24N22313	1.09
$10 \times 12 \times 3$ "	5	24N22328	1.15	24N22253	1.17
$10 \times 14 \times 3$ "	6	24N22304	1.20	24N22318	1.22
$10 \times 17 \times 3$ "	6	24N22329	1.07	24N22254	1.09
$10 \times 23 \times 3$ "	7	24N22330	1.60	24N22255	1.64
$13 \times 17 \times 3$ "	7	24N22305	1.98	24N22319	2.02



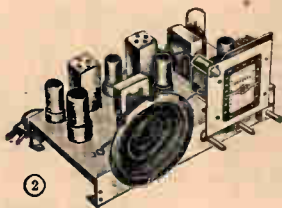
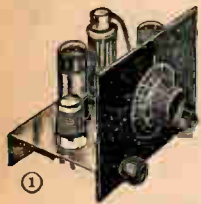
# RADIO KITS AND TRAINING SETS

## ELECTRIC MOTOR KIT AND 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 language. Permanent metal binding and hard covers. 33 precision made parts and wire to assemble an electric motor that really runs. It's safe. Operates from flash light batteries.



32N24455.....**2.95**  
20N20622—Batteries (2 required). Ea. 6½c



## MEISSNER RADIO KITS

Designed and engineered to provide students with a sound, practical training in elementary radio. Meissner radio kits are easy to assemble with the complete step-by-step instructions which are included with each kit. Receivers are simple to operate and provide excellent reception on standard broadcast and short wave bands. Enjoy building and learning by using these regenerative receivers. Supplied with plug-in coils for broadcast band 180 to 550 meters.

**1. TWO-TUBE AC-DC RECEIVER.** Uses one 76 tube as a detector and one 76 tube as a rectifier. Operates from any 110 volt AC or DC supply. Supplied less tubes and headphones.  
32N10441—Shpg. wt. 2 lbs.....**5.29**

**1. THREE-TUBE AC-DC RECEIVER.** Uses one 76 tube as a detector and one 76 tube as an audio amplifier and one as rectifier. Operates from any 110 volt AC-DC supply. Supplied with all necessary parts except tubes and headphones.  
32N10442—Shpg. wt. 2½ lbs.....**6.03**

Extra plug-in coils for use with above 2- and 3-tube kits.  
32N10422—17 to 35 Meter Plug-in Coil.....**50c**  
32N10421—35 to 70 Meter Plug-in Coil.....**50c**  
32N10420—70 to 200 Meter Plug-in Coil.....**50c**  
32N10423—545 to 1500 Meter (Long Wave) Coil.....**1.23**

**2. 6-TUBE TWO-BAND SUPERHET KIT.** Dial 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 built-in On-Off switch conveniently grouped 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 operation at max. output. Has 12SK7 RF amp., 12SA7 converter, 12SK7 IF amp., 12SQ7 detector, AVC, 1st Audio, 35L6GT Power Amp., and 35Z5GT Rectifier. With instructions and all other parts needed including tubes and speaker.  
32N24499.....**24.70**

## 5-TUBE AC-DC SUPERHET



Frequency range 540 to 1600 KC. With necessary parts including tubes and speaker. Loop, 2 gang tuning condensers, 2 IF transformers, calibrated dial, 12SA7, 12SK7, 12SQ7GT, 50L6GT, and 35Z5GT. 110 volt AC-DC operation. With instructions.  
32N24498.....**20.55**

## HAND MICROPHONE

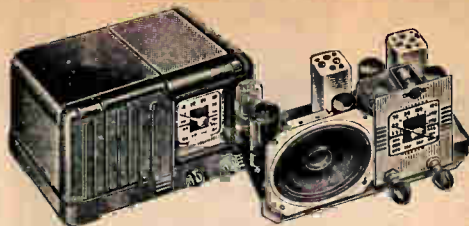


A real hand microphone. Works with any set using loudspeaker. Does not interfere with reception. Push-button switch permits reception or use of mike at will. Handsomely finished.  
32N13831.....**88c**

## "MIKE" JR.



Here is a real radio microphone that can be easily attached to any radio! Great for home entertainment, and very practical for voice students, etc. In brown finished metal case with attachment cord. Has a push button switch to cut out the radio whenever desired.  
32N13379—Wt. 1 lb.....**88c**



## 5-TUBE AC-DC KIT

With Plastic Cabinet. Circuit is the extremely popular five-tube AC-DC superheterodyne using 12SA7, 12SK7, 12SQ7, 50L6 and 35Z5 tubes. Includes automatic volume control, true tone reproduction. Streamlined airplane dial with wide tuning range covering 550 to 1600 kilocycles, built-in loop antenna and a new Alnico V speaker. Cabinet is a beautiful modern design made of brown plastic. The loop antenna is tuned by one section of the tuning condenser and fed directly into the mixer oscillator tube, the other section tuning the oscillator coil. No padding required because of the specially shaped condenser plates. IF channel is 456 KC and uses two double tuned transformers.

32N24456—With cabinet and tubes.....**13.75**

## VTVM TESTER KIT



Ideal for servicemen, amateurs and experimenters to build their own VTVM voltmeter at a great money savings. Newly designed circuit. Quality precision parts used throughout to insure utmost accuracy on all scales. DC input impedance 11 megohms, AC input impedance 6.5 megohms. Ranges: Resistance .1 ohms to 1000 megohms in five ranges; DC volts on linear scale 0-3/30/100/300/1000 volts; Output scale calibrated for 600 ohm circuit. Large easy-to-read 4½" 0-500 micro-amp DC meter. Complete with tubes 6SN7, 6H6 and test prods. Size: 6" x 9" x 5". Shpg. wt. 8 pounds.

32N24540.....**29.95**

## 3-TUBE AC-DC STUDENT KIT



Designed for basic receiver training at lowest possible cost. Simplicity of construction and foolproof operation will instill confidence in beginner's mind. Covers 550 to 1500 kilocycles, operates on 110 volt AC-DC. Uses 2-6J5, 1-6S7J tubes. Less wire, tubes, solder and earphones. Simple to construct—all you need is a screwdriver, pliers, and a soldering iron. Complete instructions come packed with each kit.

32N24459—Shpg. wt. 3 lbs.....**6.15**

## THREE-WAY PORTABLE KIT



Operates on either AC or DC, or batteries. The power switch is conveniently located on front of the set so that "batteries" or "AC-DC" may be selected without opening the case. Five-inch Alnico 5 permanent dynamic speaker. Case covered with fine grade of leatherette material. Uses 1A7, 1H5, 1N5, 3Q5, 11726 tubes. Less tubes and batteries. Easy to assemble, simple to operate.

32N24541.....**17.95**  
20N20617—45 V Bat. (2 req.) Ea.....**1.65**  
20N20610—4½ V Bat. (2 req.) Ea.....**51**

## 2-BAND RECEIVER KIT



A 6-tube, 2-band receiver kit equipped for operation on 110 volt AC or DC. Covers the following ranges: 550 kilocycles to 1600 kilocycles, 6 to 16 megacycles. Kit includes a beautiful bakelite cabinet, complete with all parts ready for assembly. Uses the following tubes: 12SK7 RF amplifier, 12SA7 converter, 12SK7 IF amplifier, 12SQ7 detector and 1st Audio, 35L6 output and 35Z5 rectifier. Less tubes. Ideal for elementary radio training.

32N24542.....**17.95**



All Popular Mechanics Kits include large, clear blueprints, instruction sheets, hardware and wire. Blueprints may be ordered separately—see list below. Parts list also available if desired.

## POPULAR MECHANICS TRAINING KITS

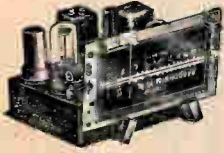
### HIGH QUALITY TEN-WATT AMPLIFIER



Conservatively rated unit with negligible distortion—employs exceptional bass reproduction method which eliminates booming tones. Output stage resistance coupled with pair of 6A3 tubes in push-pull. Circuit includes phase inverter and simple feed back.

Tubes: 6C5, 6N7, 2-6A3, 5U4G. Less speaker and tubes. **19.95**  
32N24512—Shipping weight 24 lbs. R331

### 4-TUBE AM SUPER BROADCAST TUNER



Unusually compact and efficient AC-DC AM broadcast-band tuner kit for use with PA systems, industrial sound installations, or as a remote tuner for any radio receiver equipped with phono input jacks, or standard audio amplifier units. Superheterodyne circuit consists of converter stage employing a type 12SA7 tube in an electron-coupled oscillator circuit, 12SK7-IF, 12SQ7-Det & output 3Z5GT-Rect. Complete with all necessary parts including 2-gang variable condenser, Cro-Flex dial assembly, and cadmium plated punched chassis. Less tubes. **13.35**  
32N24532—Shipping weight 4 lbs. R366

32N24532—Shipping weight 4 lbs. R366 **13.35**

### ELECTRONIC PHOTO-PRINT TIMER



Accurately controlled timing enables the busy photographer to make uniform prints. Time range from 1 to 60 seconds—controls any appliance or lamp up to 250 watts. Relay coil in series with plate circuit of triode-connected portion of 117L7-GT tube which when heated draws current and closes the relay. Dark-room "Safe-lite" on except during exposure period if desired. Kit includes blueprint and complete wiring diagram, but less tube. **9.50**  
32N24518—Shpg. wt. 6 lbs. R339

### TWO-TUBE "POCKET" PORTABLE



Operates on flashlight cells. Slips into your coat pocket with just enough extending out the top to tune. Built-in antenna, self contained batteries. Very good volume on local stations. Covers the broadcast band with additional range on each side of the dial. Uses two 1S4 miniature tubes in a standard regenerative-detector circuit transformer coupled to AF output stage. Case is easily made from cigar box. No. R-337, less tubes, batteries, headset. **5.85**  
32N24516—Shpg. wt. 5 lbs. R337

### ONE-TUBE "WIRELESS" OSCILLATOR



One-tube oscillator when used with 1 to 1.5 volt output crystal pickup supplies sufficient modulated power to play records through radio receivers in other rooms at full volume without wired connections! Employs one 117N7-GT tube as both oscillator and rectifier. Easy-to-assemble kit includes all parts for oscillator, but less tube. For pickups, etc., see index. **3.49**  
32N24531—Shpg. wt. 4 lbs. R356

### 18 POPULAR MECHANICS BLUE PRINTS

- | No.       | P.M. No | Name of Kit                                      |
|-----------|---------|--|
| 32N20300  | R-305   | Beginners "Spec" 1 tube battery kit              |
| 32N20306  | R-306   | Inter-room Communicator System                   |
| 32N20301  | R-307   | Beginners "Spec" 2-tube kit                      |
| 32N20303  | R-311   | Two Modern Crystal Receivers for Beginners       |
| 32N20307  | R-323   | Portable Phono and Mystery Player                |
| 32N20310* | R-331   | High Quality Ten Watt Amplifier                  |
| 32N20313* | R-337   | Two Tube Pocket Portable                         |
| 32N20315* | R-339   | Electronic Photo-Print Timer                     |
| 32N20319  | R-357   | Dual Purpose Signal Generator for Self-Testing   |
| 32N20322* | R-356   | One-Tube Wireless Oscillator                     |
| 32N20323  | R-362   | 1948 Low Cost Progressive Receiver for Beginners |
| 32N20324  | R-363   | Low Cost 3-Tube Progressive Receiver             |
| 32N20325  | R-364   | 1948 "Little Giant" 2-Band AC-DC 5-Tube Super    |
| 32N20326  | R-365   | Tapped-Coil Crystal Receiver and Amplifier       |
| 32N20327* | R-366   | 4-Tube AM Super Broadcast Tuner                  |
| 32N20328  | R-367   | 3-Way 4-Tube Portable Receiver                   |
| 32N20329  | R-368   | Beginner's One-Tube, AC-DC Loudspeakers Set      |
| 32N20330  | R-369   | Three-Tube Pocket Set, has built-in loud speaker |

\*Indicates kit is described on this page.

Any above, Each **25c**

### LAFAYETTE-CONCORD KITS

#### 4-TUBE HI-FI MUSIC AMPLIFIER



AC-DC amplifier, includes a built-in equalization network and pre-amp. for use with GE Reluctance or similar pickups. Separate low gain input for FM-AM tuner. Two 12SC7 tubes used as pre-amp. and audio driver tubes. Continuously variable tone control. 2-50B5 beam power amplifiers in push-pull provide audio output of over 4 watts with freq. response over 12,000 cps. Phase inverter circuit. Sel. Rectifier power supply. **13.95**  
32N24535—Less tubes. Shpg. wt. 5 lbs. R331

#### LAFAYETTE-CONCORD FM TUNER KIT



Easy-to-build, inexpensive FM (frequency modulation) kit based on newly developed circuit design that makes possible the construction of FM tuner in a single evening! Circuit employs Fre Modyne FM detector using dual high freq. triode (14F8) with one section as HF local oscillator, the other as a converter, IF amp. and detector. Excellent for use in Metropolitan areas. Supplied complete with pre-formed, punched cadmium plated chassis, large easy to read Cro-flex illuminated dial, all necessary mounting hardware, etc., with tubes 14F8 and 35W4. **14.39**  
32N24534—Shpg. weight 3 lbs. R331

#### LAFAYETTE-CONCORD PRE-AMPLIFIER KIT



Build your own pre-amplifier kit for use with the new General Electric variable Reluctance or Pickering Pickup cartridges. The finished model is as fine a bass and treble compensated pre-amplifier as any available. Plate and filament power are received from associated receiver or amplifier. Kits are supplied complete with chassis, resistors, condensers, 6SC7 tube, and full instructions. **3.95**  
32N24536—Shpg. wt. 2 lbs. R331

#### BEGINNERS' CRYSTAL DETECTOR KIT



Something new in crystal detector sets! Includes all parts plus extra-sensitive silicon crystal detector unit, and drilled Masonite board. No soldering required—Fahnestock clips provided. **2.75**  
32N24519—Shpg. wt. 3 lbs. R331

#### FM RECEIVER KIT



Not just a tuner, but a complete receiver kit with its own wide range audio system and Alnico V PM speaker for full utilization of clear, static free reception! Employs 7 tubes and rectifier. May be operated either as a tuner or as a self-contained FM radio—both applications controlled by built-in switch. No expensive instruments necessary to make this set work. Operates from regular 300-ohm FM antenna and twin lead-in. Comes in brown plastic cabinet. Complete with tubes. **29.95**  
32N24457—Shipping weight 7 lbs. R331

#### MULTITESTER KIT IN PORTABLE CASE



Build your own multitester and save money! 1000 ohms/volt 3 1/2-inch round meter for radio and servicing work. Measures up to 1500 volts AC or DC, to 150 MA DC and up to 200,000 ohms resistance. Comes complete with handsome portable case. Dimensions of case: 5 1/4 x 7 x 3 1/2". **13.50**  
32N24458—Shpg. wt. 5 lbs. R331

#### EAGLE CRYSTAL KIT



Includes fully wound tuning slide-coil, crystal detector, and "cats whiskers". No soldering—needs only screwdriver. **59c**  
32N24465—Shpg. wt. 1 lb. R331

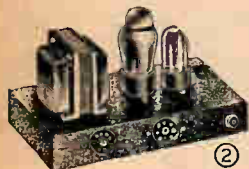


## RCA 630 TS 10" KIT BY TECH-MASTER



Finest Television kit available—especially designed for those who are able to assemble sets from a schematic and service manual. Provides exact duplicate of the famous RCA 630 TS, considered the finest engineered television set in the industry. The Sound-view 630TK contains the same efficient RCA Front End

13-Channel Tuner which comes completely factory-wired and perfectly aligned with 3 RCA matched tubes with the added advantage of a built-in Wave Trap. 30 RCA tubes (12" or even 15" tube may be substituted for the 10BP4 tube) plus parts of the highest quality used throughout. Includes dual controls for FM sound and TV picture plus horizontal and vertical control. Kit comes complete with all parts, 30 RCA tubes (10BP4 included). Schematic, but without wire, solder, mounting screws. **198.50**  
32N24539—Shipping weight, 70 lbs.



## LAFAYETTE-CONCORD

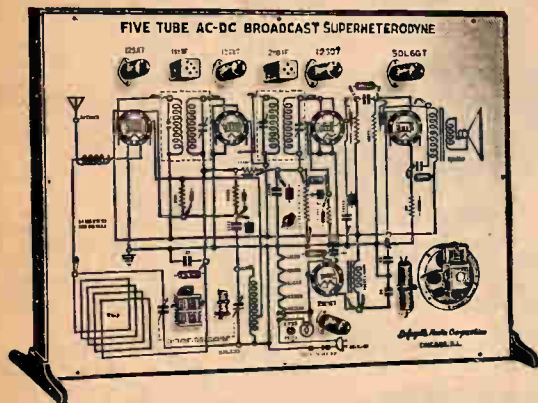
### TESTED KITS FOR RADIO TRAINING

1. One-Tube Kit, ideal for elementary training, detector operation, regeneration instruction, and alignment procedure. Uses 6J5GT regenerative detector. Frequency range 550-1700 KC. Operates from either power supply kits listed below. Less tubes, headphones, power supply. **4.84**  
32N24523—Panel, 5 1/2 x 7"; Chassis, 7 x 4 1/2 x 1 3/4"

2. Audio Amplifier Kit. High gain 2-stage resistance coupled amplifier utilizing a 6SJ7 input stage and 6F6 output stage, for use in plotting response curves, teaching audio theory. Fully shielded output transformer with 4-8-16-50 ohm output impedances. Can be used to amplify 32N24523 1-tube kit or phono—has sufficient gain to operate with high impedance mikes or phono pickups. May be used with PM speakers. Chassis: 6x9x1 1/2". **7.40**  
32N24528—Shipping weight, 8 lbs.

3. Power Source Kit for Kits Described Above. Chassis Size: 5" x 9 1/2" x 1 1/2". For 117 volts 60 cycles AC. **10.89**  
32N24526—350 V. at 70 Ma. and 6.3 V. at 3A. Wt. 12 lbs.  
32N24527—350 V. at 140 Ma. and 6.3 V. at 3A. Wt. 15 lbs. **14.30**

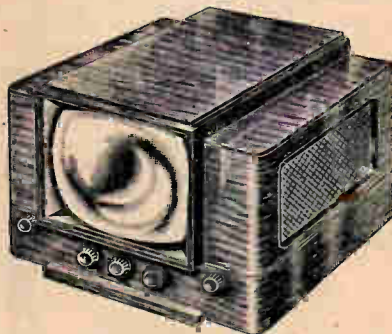
## FIVE TUBE AC-DC BROADCAST SUPERHETERODYNE



## 5-TUBE AC-DC DEMONSTRATOR

Demonstration unit designed to simplify instruction in theory of radio circuit design and operation, circuit analysis and trouble shooting, and proper use of test equipment in repair work. Multiple snap connectors used on each tube element for signal and voltage measurement; also at circuit junctions so that each coil, condenser or resistor may be opened, or, where it will not damage the unit, shorted out to simulate actual conditions in defective receivers. Circuit diagnosis by use of test equipment can be practiced without wiring parts which are actually defective. Trimmers accessible from front of panel for demonstration of alignment procedure. Consists of a 5-tube AC-DC superheterodyne, covering a frequency range of 540 to 1600 KC. with following tube line-up: 12SA7 1st detector and oscillator; 12SK7 intermediate frequency amplifier; 12SQ7 2nd detector and 1st audio; 50L6 beam power output; 35Z5 rectifier. For 110-120 volt, 50-60 cycle, AC or DC. In kit form with every part supplied. Four-color panel finished and drilled. Less tubes. **36.30**  
32N24530—Demonstrator kit. Shpg. wt. 39 lbs.

# TRANSVISION

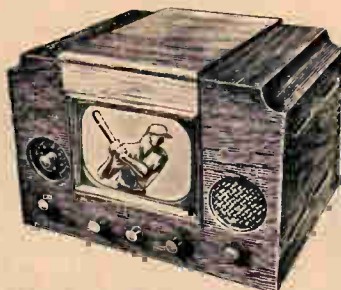


## TRANSVISION KIT WITH 11.5 SQ. INCH PICTURE

Transvision quality set in kit form—save as much as 50% over the cost of a teletest having similar size picture by assembling the set yourself. No technical knowledge is required—easily assembled by any layman. Simple, complete, easy to follow instructions are included in every kit. Includes a beautifully designed cabinet with a built-in lens and gives a picture size of 11.5 square inches. The high quality and amazing economy of this set is readily apparent when you consider that it uses a built-in lens and a 10-inch tube retailing at about \$40.00 but which gives the equivalent picture area of a set using a 15-inch tube retailing at \$130.00. Not only is the initial cost lessened, but the tube replacement cost as well. Factory wired for seven channels.

In addition, the kit includes a complete FM radio which comes completely factory wired and tested. All controls located on front panel. Complete with tubes, including direct view, 10" electromagnetic deflection picture tube, antenna and lead-in wire. Walnut finished cabinet measures 26x17x19".

**32N24537—Shipping weight 75 lbs. 269.00**



## TRANSVISION 12" TELEVISION KIT

New, easy-to-assemble kit gives bigger, better Television with 12-inch picture tube (1 1/2 times 10-inch tube size) provides advanced circuitry and extra picture stages for exceptionally clear 75 square inches of picture. Engineered for fast, easy assembly with the following performance-packed features: RF unit factory wired and retuned for reception on 7 television channels; 4 MC bandwidth for full picture definition; 9000 volts second anode potential for brightness and contrast; 3 stages of picture IF factory wired and retuned; 2 stages of factory retuned and aligned IF Coils; maximum picture sensitivity (better than 50 microvolts) and stabilized synchronizing circuit for rock-steady pictures.

All parts are of the finest quality—all fully guaranteed. Easy to operate—no harder than tuning your own radio. Kit comes complete with all tubes, 12-inch picture tube, plus specially designed folded dipole antenna with 60 feet of lead-in cable. Nothing more to buy! Instructions included. Less cabinet.

**32N24538—Shipping weight 60 lbs. 249.00**

Table Model Cabinet for 12" Television kit above. Beautiful rubbed wood finish. 24x17x18".

**32N24494—Shipping weight 10 lbs. 39.95**



**WIRELESS MICROPHONE**

New streamlined microphone allows you to talk through your radio from any room in your house—and without the use of connecting wires! Tunes in just like a regular broadcasting station. By using two microphones, any home radios may be employed as intercommunication sets between various parts of the house. This amazing wireless microphone has an effective range of 75 feet and tunes 1000 to 1700 KC by means of knob at side of case. A clear channel assured at all times.



This lightweight unit is entirely self-contained, with power supplied by one flashlight cell and a "Mini-max" "B" battery. The power drain is extremely small, due to the use of only one tube, a 1L4 type. Microphone has handsome silver-gray finish with a contrasting brown base. Rubber rim on base protects furniture against scratching. Attractively designed to harmonize with all furniture—can be permanently installed in any room of the house—color and design will not clash with the background. Overall dimensions: 6¾" high, 5½" deep, with a 5" base. Complete with batteries and tube, ready for immediate use.

32N22548—Phones. Shpg. wt. 3 lbs. Each..... **6.63**

Same as above, but for use on 110 volts AC.

32N22549—Shipping weight. 3 lbs..... **8.16**

**MARVEL TELEPHONE SYSTEM**

New utility telephone system provides an inexpensive method of establishing intercommunication in homes, offices, factories, farms, etc. Consists of two pressed metal cradle type telephones connected by cable 70 feet long. Requires two dry cells at each phone. The set will operate over much greater distances if desired.



Distance depends upon the number of batteries used (not furnished). System is operated by merely pushing the "push-to-buzz" button and then lifting the hand phone to listen. Complete instructions and guarantee are included with each set.

32N14004 Phone. Shpg. wt. 3 lbs. Each..... **7.95**

Lots of 3, Each..... 7.46

20N19858—Batteries for above. Each..... 47c

**CONNECTICUT DUPLEX TELEPHONE SET**

Handsome green finished all metal phone cases with built-in bell ringers and black bakelite mouthpieces. Separate earphone with black bakelite earpiece. Perfectly safe! Uses two ordinary No. 6 dry cells at each station for lines up to 1000 feet long. Longer lines up to 2000 ft. in length may be run by adding more batteries. Ideal for house to garage, basement to upstairs, farm-house to out-buildings. Complete with 160 feet of 19-gauge white plastic insulated copper line wire, two phone stations and necessary hardware for wall mounting. Batteries not furnished.

32N14002—Per set..... **7.12**

20N19858—Batteries for above. Each.... 47c





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**DETECTORS, CAT WHISKER, CRYSTAL**

1. Glass Enclosed Detector. Dustproof. With supersensitive mineral and cats whisker. 32N13916—Each ..... 29c
2. Fixed Crystal Detector. Supersensitive point found by meters. Bakelite case with screws. 32N13913—Each ..... 46c
3. Cat Whisker. Finest wire—correct tension—holds that sensitive spot. 32N13921—Envelope of 3..... 9c

4. Supersensitive Crystal. New extremely sensitive crystal assures picking up more stations and gets them louder. Each crystal is meter tested after selection. 32N13901—Each..... 12c  
10 for ..... 1.08

5. Crystal Detector. Includes ball and socket swivel arm, crystal with holder, base and clips. 32N13917—Each..... 22c  
32N13906—Same as above, less base and crystal..... 12c  
32N13900—Crystal only..... 6c

**BEGINNER'S CRYSTAL DETECTOR KIT**

A ready-to-assemble kit especially designed for beginners in radio. Includes all radio parts necessary for assembly. No soldering or involved wiring techniques are required. Fahnestock clips are provided for fastening wires to terminal points. Merely mount parts and clip wires to the points indicated by the full size instructions that accompany each kit. Overall dimensions when assembled 7"x7½"x2½". Includes all parts, wire and extra sensitive silicon detector.



32N13871—Detector Kit. Shpg. wt. 4 lbs..... **2.45**

**SUPERTONE CRYSTAL SET**



This Supertone Crystal Set is a big seller and there is plenty of good reason for its popularity. Remarkable results have been obtained and its scientific construction gives loud, clear, distortion-free reception. A Supersensitive crystal is utilized which is mounted in a glass enclosure.

32N13888—Supertone Crystal. Shpg. wt. 1 lb..... **1.26**

As above, without enclosed detector. Bakelite housing.

32N13889—Little Wonder Crystal Set. Wt. 1 lb..... **1.04**

**SUPERTONE RADIO KIT**

An interesting, educational, ready-to-assemble radio kit that is ideal for beginners. Includes molded bakelite base with contact slider, single headphone, and Supersensitive crystal as shown above. Complete directions for assembly and operation, as well as instructions for putting up most effective antenna.

32N13870—Radio Kit, Shpg. wt. 2 lbs..... **1.95**

**TEE-NEE RADIO—NO TUBES, BATTERIES, CURRENT**



No more fussing with batteries, tubes, or plugging into power lines—new Tee-Neeradio needs only an aerial and a ground. Housed in a beautifully finished mahogany crackle finished steel case. Tee-Neeradio is supplied complete with single headphone with head band, but without aerial and ground wires. Overall radio size: 5¾" long, 4¾" high, 3" deep.

32N13880—Model 250. Shpg. wt. 1½ lbs..... **3.92**

**TEE-NEE PLASTIC CASE RADIO**



Housed in a beautiful mahogany colored plastic case, just like the big sets. Earphone sets into case when not in use. Remove the earphone from the case and hold close to ear for good reception. Set is shipped complete with single earphone, but without aerial and ground wire.

Overall dimensions: 4" long, 2½" high, 1½" deep. 32N13881—Model 100 Crystal Set. Shpg. wt. ½ lb..... **2.36**

**MODEL 500 MICROPHONE**



Permanent magnet type mike equipped with 18 feet of cable. Bullet shaped design finished in black and nickel. Has exceptional capabilities for amplifying sound with minimum distortion and maximum of fidelity. Overall size: 4x3x3". 32N13380—Model 500 Mike. 9 oz..... **2.21**

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10 for ..... 4.50

**HEADPHONE KIT**

When installed, user can enjoy choice of headphone reception only, speaker reception only, or both together. Complete outfit consists of 18" connecting cable, adapter with three-way switch and terminal jacks on an insulated panel, special Reliance phones with 6-ft. cord and complete instructions. 32N13944—Wt. 3 lbs. **2.61**





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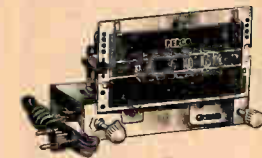
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 20N20614—Replacement Burgess Batteries, Each ..... **1.65**

## INFRA-RED HEAT LAMP

New, easy-to-operate lamp for heat therapy or general use where concentrated heat is desired. May be employed as well for drying clothes, freshly painted surfaces, wet hair, and various other items. An excellent therapeutic aid for aches, pains, or soreness. Needs no involved installation—just screw into ordinary socket. Operates on 250 watts, 110 volts AC-DC.

33N25503 ..... **1.25**



## LIVINGSTON "UNIVERSAL" PICKUP ARM

New curved reproducer arm accommodates practically any cartridge, including LP types that use a 1 mil stylus. For use with new Columbia LP records plus regular or studio recordings. Tracks well on 12" or 16" 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. .... **14.95**

## S-K WRENCH SET

New, all-purpose wrench set for work on ignition, carburetor and radio. 16 piece kit contains reversible ratchet, 2" and 6" extensions, flex handle, X bar, 1/4", 3/8", 1/2", 5/8", 3/4", 1" 6 pt. skts., 1 1/4", 1 1/2", 1 3/4", 2" 12 pt. skts., and 1/4", 3/8", and 3/4" 8 pt. skts. in 1/4" square drive. Chromium plated and polished.

Wrench set is shipped in handy wrinkle finish metal box. 18N15590—Shipping weight 2 lbs. .... **7.52**



## 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 off, combined, or rearranged. Tekni-Cals are easy to apply, handsomely made and give long, satisfactory service.

11N19885—Television Markings. Set of over 1,000.  
 11N19888—Audio Markings. Set of over 1,000.  
 11N19889—Dial Markings. Set of over 50.  
 11N19890—Transmitter Markings. Set of over 1,000.  
 11N19891—Receiver Markings. Set of over 1,000.  
 Any Set Above, Each ..... **1.92**

## PROJECTION TELEVISION ASSEMBLY P-520

A custom-built projection Television assembly complete with rack and screen. Picture area of 520 sq. in. (20" x 26"). Precision-engineered for superb reception. Optical-Electronic system consists of RCA, 5TP4 C.R. Tube, Bausch and Lomb f/1.9 lens, Eastman Kodak projection screen. Aluminum top coated mirror and pre-wired 27-30 KV Tripler Flyback Power Supply also included. Dumont Inputuner containing all TV channels plus FM radio supplied all-ready pre-wired, as well as 13-tube IF picture and sound strip (4.25 MC bandwidth for excellent definition). Audio system consists of a first audio stage which feeds into a phase inverter, which in turn feeds into a pair of 6F6 push-pull Class AB2, with about 12 watts undistorted output. Speaker is 12" RCA heavy-duty PM type. Complete with 36 RCA tubes, two low voltage power supplies. All components are completely wired and ready for installation except the TV chassis which has the difficult front end pre-wired. Balance of chassis is in kit form. A complete manual of instructions for completing wiring and installation by John F. Rider is included with each set.



31N24549..... **769.50**

## SIGNALITE 6 IN 1 PLUG FUSE



U. L. approved. Contains 6 separate fuse links—can be used six times without removing from socket. Signal lamp lights in shock-proof indicator cap when fuse blows—remains lit until cap is turned to renew fuse. Eliminates changing of fuses in dark, fumbling to find blown fuse. Each amperage is made with different colored cap.

39N13250—10 Amp. Fuse, Orange Cap. **48c**  
 39N13251—15 Amp. Fuse, Red Cap. Each  
 39N13252—20 Amp. Fuse, Blue Cap. 6 asst. for 2.16  
 39N13253—25 Amp. Fuse, Yellow Cap. 120 asst. for 25.28  
 39N13254—30 Amp. Fuse, Green Cap.

## 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 powerline voltage, and secondary receptacles give choice of 117 V, 105 V, or 130 V supply.

6N1600—Shpg. wt. 15 lbs. .... **5.26**



## "MINI-VOLT" METER

A "must" for servicemen. Indicates voltage of available power lines, warns of voltage drop due to faulty operation of equipment, checks for blown fuses, accidental grounds, transformer and capacitor break-downs, open choke coils, etc. Dependable, compactly sized, calibrated for use on AC from 65 to 660 volts. For DC voltage readings, use simple conversion factor. Genuine GE Neon lamp indicator tells whether power supply is AC or DC. Lightweight plastic case and dial panel, thoroughly insulated. "Mini-Volt" meter is furnished with 12" test prods and test leads.

25N12982—Shipping weight 1 lb. .... **1.64**



## SONAR "PIX BOOST"

Best buy for the Television set owner! This new All-Channel pre-amplifier picture booster makes any television receiver better by increasing the signal to noise ratio. "Pix Boost" is especially helpful in eliminating fringe, snow, and lack of detail, experienced by receivers located outside the service area; also eliminates interference caused by radiation of signals by receivers without RF stages. In addition, this pre-amplifier will render better contrast, sharper definition in the TV receiver where outdoor antennas are not in use. Operates on three tubes, two of which are dual purpose type, giving the equivalent of five tube performance. Housed in handsome walnut finish wood cabinet 5 inches wide, 6 inches high, and 3 inches deep. "Pix Boost" comes complete with 3 tubes and two 3-foot lengths of transmission line.

31N2441—Shipping weight 8 lbs. .... **16.61**





# Now faster service, added savings!

## *Lafayette-Concord Radio*

### **Serves You Faster from Three Mail Order Centers**

Now you can order from the mail order center nearest to you . . . Chicago—New York—Atlanta . . . and be sure of swifter than ever service, just the efficient, speedy delivery you want.

To guarantee the fastest possible service, use the special envelope enclosed. It's already addressed to our nearest location. Then mail future orders to the same mail order center.

### **Saves You Most through Combined Purchasing Power**

Now you are sure too of added savings due to combined huge scale buying power. And prompt delivery is assured by a tremendous stock, complete to fill your every electronic need.

Yes, you save most of Lafayette-Concord, and save time and trouble too, as well as money. Three completely-stocked warehouses make some day shipment possible—another service "must".

### **Serves You in Person in Seven Convenient Stores**

For personal over-the-counter service . . . you can't beat the new Lafayette-Concord Radio! You'll find smiling service plus radio and television know-how in every one of the stores.

Whether you live in or near Chicago—New York—the Bronx—Newark—Boston—or Atlanta . . . try the Lafayette-Concord store. Shop in person, or just pick up your telephone and call us!

### **Free! Eight Advisory Technical Departments**

You are cordially invited to use one or all of Lafayette-Concord's special technical departments staffed with very highly skilled craftsmen in their chosen respective fields.

Write or call these departments in New York or Chicago: SOUND, SCHOOLS, BROADCASTING, INSTITUTIONS, EXPERIMENTAL, AMATEUR, SPECIAL LABORATORIES, INDUSTRIAL.

### **30-Day Free Trial**

Buy any Lafayette-Concord receiver on 30-day free trial. Give it every test. If you are not completely satisfied during the 30 days, return it for full credit or refund of the total price.

### **Time Payment Plan**

Now it's easy to own any electronic equipment you want. Monthly time payment assure your enjoyment of radio, television, sound—ot once. Just send in your order, and ask for details.

## **28 Year Old Guarantee of Complete Satisfaction**

Lafayette-Concord's 28-year old guarantee of complete satisfaction or your money back is a time-honored hallmark of trust. Through almost three decades, millions of satisfied customers all over the world attest to the reliable dependability of that trust. And you can order today, secure in the knowledge that you will receive the best possible equipment at the least possible price. For your proof—order from this book now!

Every item in this catalog is guaranteed to conform with the standards of the Radio Manufacturer's Association, and to perform in the manner intended for such apparatus. It is our pledge that you must be completely satisfied with everything you buy here. If you are not completely satisfied, return it for exchange, or repair, or refund of the total price you paid.

*Lafayette-Concord Radio*



# "LIMITED QUANTITY" SALE

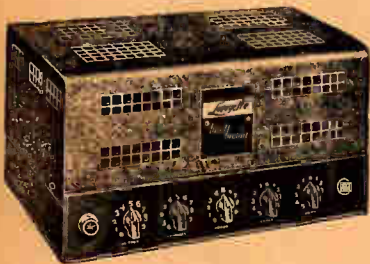
## 25 WATT AMPLIFIER—ORDER NOW!



An ideal amplifier, with power enough for small industrial plants, classrooms, churches, cafes and innumerable similar applications. Separate inputs and controls for two microphones and one phono — this permits complete mixing and fading as desired. No better buy for those who want power, performance, efficiency at low cost. Specifications: 25 watts output; bass treble tone control; 125 db mike gain; 80 db phono gain; 50-10,000 cps. response; less than 5% distortion at normal output; 5 output impedances: 2, 4, 8, 15 and 500 ohms. 2—7B4, 7N7, 2—6L6G and 5U4G rect. 110-120 V. 60 cyc. 15x8 $\frac{1}{4}$ x8 $\frac{1}{4}$ ".

99N9000—Shpg. wt. 30 lbs... **39.95**

## 50 WATT AMPLIFIER—ORDER NOW!



This unit built especially for permanent installations. Excellent for centralized public address systems. With provision for simultaneous use with two microphones and one record player. Magnificent power at remarkable low cost. SPECIFICATIONS: 50 watts normal output; 2 microphone, 1 phono channel; separate bass and treble tone controls; 125 db mike gain; 80 db phono gain; response 50-10,000 cps  $\pm$  2 db; -56 db hum level below normal output; 2, 4, 8, 15 and 500 ohm output impedances; 2—7C7, 7F7, 7N7, 4—6L6G and 2—5U4G rect. 110-120 V. 60 cyc. AC. Tan case. 16x10 $\frac{1}{4}$ x10 $\frac{1}{4}$ ".

99N9601—Shpg. wt. 47 lbs... **61.95**

## 75 WATT AMPLIFIER—ORDER NOW!



Tremendous power plus versatility mark this Lafayette 75 watt as the best in Public Address. It is unparalleled for use wherever great power and absolute clarity of reproduction are essential. Special "standby" switch keeps tube filaments warm for instant use. SPECIFICATIONS: 75 watts output; 2 mikes, 1 phono input with separate controls; separate bass and treble controls; 124 db mike gain; 94 db phono gain; 50-10,000 cps. response; less than 5% distortion at normal output; 4, 8, 15, 125, 250 and 500 ohm output impedances; 2—7C7, 2—7F7, 2—6Z6G, 4—6L6, and 2—83V, 5Y3G rect. 17x13 $\frac{1}{2}$ x8 $\frac{3}{4}$ ".

99N9602—Shpg. wt. 68 lbs... **77.95**

## 30 WATT AMPLIFIER—ORDER NOW!



30 watts of high fidelity output—high quality workmanship—an unbelievably low price, make this the amplifier buy of the year. Designed to cover indoor audiences up to 3000 people and outdoor areas up to 60,000 sq. ft. Ideal for ballrooms, churches and theatres.

SPECIFICATIONS: 30 watts, 70 volts normal output 5% distortion. 40 watts peak. 2 mike, 2 phono inputs. Mike gain 105 db., phono, 60 db. Frequency response 50-10,000 cps. Bass and treble tone control. Output impedances 4, 8, 166 ohms. 2—7B4, 7F7, 4—6V6 and 2—6X5 rect. 110 V. 60 cyc. A.C. 15x10x8 $\frac{1}{8}$ ".

99N9603—Shpg. wt. 25 lbs... **44.95**

## HARDWOOD CABINETS



Blonde finish table model lends modern touch to any room. For chassis 12x6 $\frac{1}{2}$ x6 $\frac{1}{4}$ " or less. Mounting position for chassis ventilated, lined with asbestos. Mtg. holes for chassis on standard 5 $\frac{1}{2}$ "x4 $\frac{3}{8}$ " ctrs. Grille for up to 5" dia. or 4x6" speakers. Holes for 3 controls on 3 $\frac{1}{2}$ " ctrs. Slide rule dial opening 5 $\frac{7}{8}$ "x1 $\frac{3}{8}$ ". Cabinet dimensions 14 $\frac{1}{4}$ x8 $\frac{1}{2}$ x7 $\frac{1}{4}$ ".

99N7075—Wt. 5 lbs. **1.49**

## SPECIAL FEATURE!

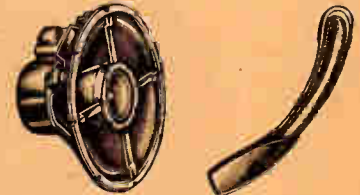


## TWO-WAY INTERCOM SYSTEM

Complete two-way system! Ideal for nurseries, restaurants, factories and homes. Units quickly installed without special tools. Remote stations can be placed up to 2,000 ft. from Masters. Uses 50L6 and 12SJ7 audio amplifiers plus selenium rectifier. Plastic cabinet. 8 $\frac{3}{4}$ "x6"x4 $\frac{1}{2}$ ". With tubes, AC cord and plug and 50 ft. hookup wire.

99N9582—Shpg. wt. 8 lbs... **12.95**

19N16013—Extra wire, per foot... 1 $\frac{1}{2}$ c



## COAXIAL HI-FIDELITY SPEAKER

Ideal for quality FM-AM receivers. 15" dual speaker system with built-in frequency network. Tweeter and woofer reproduce entire audible range with magnificent realism. Built-in load resistor. 8 ohm input impedance.

99N7014—Shpg. wt. 24 lbs... **34.95**

## MICRO-GROOVE PICKUP

Critical phono pickup for reproduction of lateral cut long playing microgroove records at 33 $\frac{1}{3}$  rpm. Excellent frequency response. Output approx. 1 volt. Extremely low tracking force. Will not operate on standard records.

99N3577—Shpg. wt. 12 oz... **4.95**



## THREE TUBE PHONO AMPLIFIER

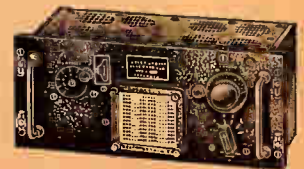
Build your own hi-fidelity record player or changer. Variable tone control, 2 watts output. 50L6, 12SQ7, 35Z5 rect. Phono motor connects to amplifier. Less tubes, output transformer.

5B9584—Shpg. wt. 2 lbs... **2.98**

## TU-10-B TUNING UNIT

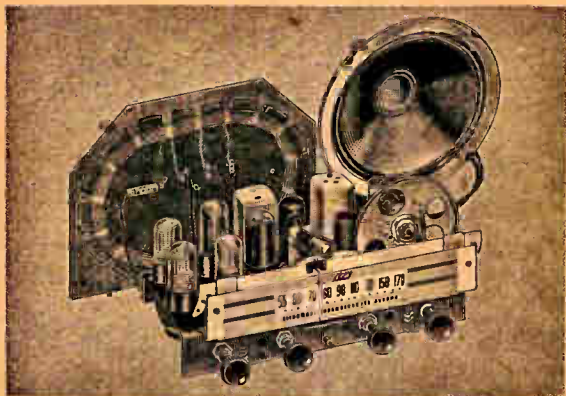
Plug-in variable frequency master oscillator and buffer tuner, frequency range 10,000 to 12,500 KC. Ideal as basic unit for high power transmitter exciter unit without alteration, or component parts may be dismantled for other uses. Contains 3 Hammerlund tuning condensers, 2 tuning coils, silver mica condensers, terminal strips, vernier dials, heavy duty ceramic switches. Aluminum case, 7 $\frac{5}{8}$ x16 $\frac{3}{4}$ x8 $\frac{3}{4}$ ".

99N9542—Shipping weight 18 lbs... **1.95**





# DOLLAR-SAVING VALUES



## LOW-PRICED AM DELUXE CHASSIS

Save money—build your own radio! Here is a superb-performing radio chassis at a dollar-saving price—a supersensitive superhet radio with 10" 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 audio circuit brings you 3 watts output for glorious realism to your radio reception. Built-in loop antenna eliminates trailing wire or outside antennas—provision made for outside antenna should you desire one. Large easy-to-read slide rule dial tunes entire broadcast band. Tubes used: 6SA7, 6SF7, 6SL7, 2-25L6 plus two 25Z6 rectifiers. Overall size: 8" x 11 $\frac{3}{8}$ " x 7".

IN701—Shipping weight 10 pounds..... **24.95**



## SPECIAL FEATURE!

## ADAPTOL MINIATURE AM SUPERHET TUNER

Newly designed super-sensitive AM tuner. Ideal for use in special custom designed installations or as replacement unit in older consoles. Also well suited for use with public address systems, motion picture sound projectors, amplified record players, wire recorders and tape recorders. Covers entire standard broadcast band from 540 to 1700 KC. Permeability tuned drift free IF's assure stable operation under all conditions. Approximately 0.5 volt audio output across 0.5 megohm internal load resistance is ample for phono input of most amplifiers. Powerful superheterodyne circuit uses: 12BE6 dual purpose oscillator and mixer, 12SF7 high gain IF amplifier, diode detector and AVC, plus a 50B5 rectifier. Compact in size—measures just 4 $\frac{1}{2}$ " x 3 $\frac{1}{2}$ " x 3 $\frac{3}{4}$ ".

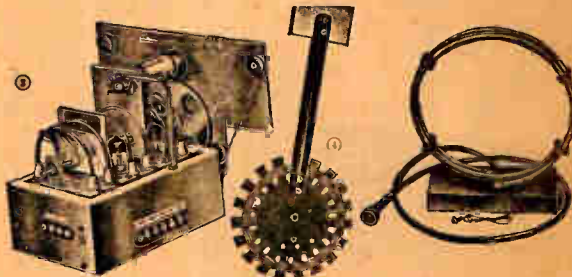
30N22483—Shipping weight 3 pounds..... **12.45**



## CARRON MECHANICAL PHONOGRAPH

1. Low-priced acoustic phonograph with fine tone and plenty of volume! Improved type mechanical reproducer eliminates necessity for using radio tubes. Constant speed motor operates on 110 volts 60 cycle AC and plays all records up to 12" in diameter. Balanced tone arm permits smoother playing and assures longer record life. Motor is fully enclosed for safe, trouble-free operation. Handsome Walnut metal cabinet with decorative decal. Overall Size: 13"x9"x3".

34N22655—Shipping weight 9 lbs.....Only **7.60**



## SPECIAL VALUE FM FRONT END

3. Newly designed with latest in circuit developments for extremely stable and sensitive operation. Ideal for use with public address systems or for remodeling old AM receivers. Frequency coverage from 88 to 108 MC. Large easy-to-read slide rule dial for fast tuning. Antenna provision for 300 ohm line. IF frequency is 10.7 MC. Tubes used: 6AK6 RF amplifier, 6J6 oscillator, mixer, detector. 6U5 tuning eye indicator. 8"x5"x3". With tubes, dial, instructions.

30N22494—Shipping weight 10 lbs.....Only **16.95**

## CARRON PORTABLE PHONOGRAPH

2. Same operating characteristics as above. Housed in sturdily-constructed easy-to-carry portable case. Finished in attractive Blue baked-on enamel. Size: 14 $\frac{1}{2}$ "x12"x7".

34N22668—Wt. 14 lbs. Each, Lots/6, **9.25**.....Each, **9.75**

## ECA FM SIGNAL GENERATOR

Designed for precision accuracy, simplicity of operation. Frequency coverage 2 to 227 MC on 3 bands. Covers entire FM, TV bands. Sweep width 500 KC to 10 MC. Maximum output 500,000 micro-volts. Output can be frequency modulated or pure RF. 105-125 V. 60 cyc. Gray wrinkle case.

25N21736—Wt. 16 lbs..... **34.95**

## ECA AM SIGNAL GENERATOR

Extremely stable—covers 100 KC to 25 MC in 6 bands and 19 to 75 MC in 3 bands of harmonics. Internal modulation 400 cps, variable from 0-100%. 110 V. 60 cyc. 8"x10"x12".

25N21738—Wt. 19 lbs..... **32.50**

## ALIGNMENT WAND—RADIATION LOOP

4. Newly designed radiation loop and alignment wand provides a fast, efficient means of checking tracking of loop and oscillator stages of any receiver using a built-in loop antenna. Couples any signal generator to receiver loop, radiation loop loosely to eliminate possibility of misalignment or mistracking. With instruction booklet.

25N21509—Shipping weight 3 lbs.....Only **5.95**

## SPECIAL VALUE RECORD CHANGER

Improved automatic record changer. Jam proof and child proof—tone arm can be moved at any time without jamming unit or changing adjustments. Plays records manually or automatically—plays ten 12" or twelve 10" records at one setting. Single control for simplified



operation. Lightweight crystal tone arm assures hi-fidelity reproduction. Constant-speed 110 volt 60 cycle AC motor. Base plate 11 $\frac{1}{2}$ "x13 $\frac{1}{2}$ ". Requires 6" above and 2" below panel board.

89N9593—Shpg. wt. 12 lbs.....Only **16.95**



# MORE FOR EVERY DOLLAR

## SPECIAL FEATURE!



### WIRE CHIEF'S PORTABLE TEST SET

A "must" for P.A. men. Can be used as: telephone set in connection with a handset; DC voltmeter, 0-50 V, 1000 ohms/V, 1% accurate; ohmmeter; to check insulation resistance; to predict location of a break in a line by determining capacity between two wires or one wire and ground. Parts alone worth far more than price of entire set. All contained in sturdy metal-bound wooden box with hinged lid, snap lock, and strap carrier.  
99N9565—Wght. 7 lbs.....**39.50**



### LINE CORD RESISTORS

Rated at 3 amps for radios, phono osc.  
X212—135 ohms.....**39c**  
X213—180 ohms.....**39c**  
X214—220 ohms.....**39c**



### GROUND ROD

Made of heavy steel 16" long and 3/4" dia. Pointed end for easy driving.  
99N7099.....**19c**



### AUTO RADIO SUPPRESSORS

High quality, elbow cable type, spark plug noise suppressor. In black molded case.

X211—10 for 72c.....Each **8c**

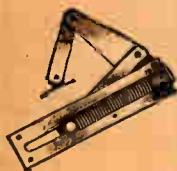
### Z-O TWO METER CHOKE



High frequency solenoid choke. Designed to prevent resonance in the 2 meter band. Rated at 2 mh. and 1 amp. DC resistance 0.19 ohms. 1 3/4" lg. and 1/4" dia. Pigtail leads 1 1/2" long. Insulated and protected by moisture proof coating.

99N3576—6 for 25c.....Each **5c**

### SPRING LID LIFT



Heavy duty spring type lid lift. Spring tension adjustable to counter-balance any type lid. For right hand cabinet mounting.

99N6995.. **1.19**

### EXCITER LAMP



G. E. Mazda 2 volt, 1 amp exciter lamp. For use in motion picture sound projectors.

99N142—5 for 85c Each.. **19c**



## SPECIAL FEATURE!

### STROMBERG CARLSON FM ANTENNA

Covers all FM bands. Easy to handle, quick, easy assembly. Heavy mounting bracket with swivel base permits antenna to be turned for best reception from any direction. Slide-in trombone type arms are calibrated and marked in megacycles to permit matching of your most-used frequencies. Arms and mast constructed of light, seamless, heat-treated aluminum tubing. With mounting hardware and 60 ft. of 300 ohm twin lead-in wire. List price 12.00.

99N9578—Shpg. wt. 4 lbs.....**4.95**

Each, lots/3.....**4.45**

### INDOOR FM ANTENNA



Designed to give peak FM reception on the new 88-108 MC band without an outdoor antenna. Thin enough to be placed under carpets without bulges, or can be mounted in attic, or on window frame. With 6 ft. of 300 ohm twin lead-in.

99N9595.....**1.49**

### AUTO RADIO ANTENNA



Bargain special, three section, triple chrome-plated slide cowl auto antenna. Stainless steel rod section and solid brass tubing. Brass tubes 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 Fool-Proof low loss shielded cable and necessary mounting hdwe.

99N9596.....**1.69**

### 67 1/2 VOLT BATTERY



Big value—67 1/2 volt "B" batteries for personal portable radios. Replaces Burgess XX45, etc. Fully guaranteed. Size: 1 3/8 x 2 1/4 x 3 1/4".

99N6599.....**1.39**

### AC RECEPTACLE



Quality standard single AC receptacle. Fits 1 3/8" dia. hole. Metal mtg. strip. 1 3/8" ctrs.

99N281....Each **12c**  
10 for .....**1.08**

### 3/8" SOCKET WRENCH

Popular size socket wrench. Large hand size firm grip, unbreakable handle. Heavily plated shank will not rust. Deep hole in end of shank takes long screws up to No. 10, 6" long.

99N6994.....**8c**

### 5 AMP TUNGAR BULBS



Save money on top quality, well known brand tungar bulb. For replacement in battery chargers, "A" eliminators, etc. Can also be used in place of Rectigon bulbs of equal rating.

99N6996.....**1.59**



## SPECIAL FEATURE!

### 6 VOLT VIBRATOR

Popular brand name vibrator. Replacement for Mallory 294, 4-4, Radiart 5300, SO-1, Utah NP-22, Delco-5,040,000, 5,052,-378 and Meissner EO1.

99N3850.....**98c**

### MARKER BEACON RECEIVER



BC-1023 marker beacon receiver for reception of modulated signals on 75 MC band authorized by FCC; variable tuning permits coverage of 62-80 MC without circuit changes. Output used to flash an indicator lamp

on pilot's instrument panel. Relay circuit in set can be adapted to control external circuits, open doors, etc. with tubes (1-6SQ7, 1-6U6GT, 1-6SC7, and 1-12SH7). 12-14 VDC 5 3/8 x 5 3/8 x 3 1/8".

99N9547—Shpg. wt. 00 lbs.....**3.95**

### XTAL FREQUENCY STANDARD



This unique AN/ART-13A transmitter sub-assembly can be easily adapted into an excellent frequency meter, with a range of 50 KC to 18 MC by merely adding an

external power supply and VFO. Uses 12SL7GT, 200 KC calibration osc. and frequency tripler, 12SA7 converter and 12SL7GT signal detector and MCW 1000 cps osc. Size: 5" H x 5 3/8" L x 3 3/8" W. With tubes, schematic.

99N9548—Shpg. wt. 4 lbs.....**2.95**

### ANTENNA CABLE



Heavy phosphor bronze antenna cable at special bargain price. Approximately 115 foot roll of 42 strand cable with strong linen core.

99N5140—5 for 3.55.....Each **79c**

### 50 FT. ROLL CABLE



Durable plastic insulated 4 conductor intercom cable. Color coded conductors are of #22 solid wire. Can be easily unstranded and used as radio hookup wire.

99N5139—Shpg. wt. 1 lb.....**1.19**

### TERMINAL STRIP



High quality Phenolic insulation with two screw type lug terminals. Terminals marked Gnd. and Phono.

99N280—10 for 35c.....Each **4c**

### "ZIP" WIRE STRIPPER



Strips wire instantly! Fasten wire stripper to bench or other support. Adjustable stop enables wire to be stripped to any length. Pivoted blades will strip insulation clean in one operation. Suitable for any wire up to 12MM diam. Size: 2" x2" x2 1/2".

98N15268—Each.....**39c**



# SUPER VALUE SPECIALS

## SPECIAL FEATURE!

### 12" ALNICO "V" SPEAKER



Replacement for FM-AM receivers 12" PM dynamic speaker with Alnico V permanent magnet. Magnet weight of 6.8 oz. is equal to 20 oz. of conventional magnets. 1" voice coil with 6-8 ohms impedance. Capacity is 14 to 18 watts.

99N7010..... **5.95**

### 3" 450 OHM SPEAKER



A quality speaker for general replacement. In call systems, hearing aids, midjet radios. Has 450 ohms field coil. Flat response, when properly baffled, from 100 to 4500 c.p.s. Formed 1 pc. cone. Less transformer. X146—Wt. 3 lbs. **1.44**

### 15" PM SPEAKER—9 LB. MAGNET



For use with high power Public Address systems and as replacement in high fidelity FM and AM consoles. 9 lb. magnet assures high fidelity and frequency response. Full 25 watts normal, 35 watts peak. Voice coil 8 ohms. Shpg. wt. 15 lbs. 90N7017... **19.95**

### POWER TRANSFORMER



Fully cased, electrostatically shielded. 115 V. 60 cyc. AC. Sec. 800 VCT at 200 ma, 5 V. at 4 amp. 6.3 V CT at 5.5 amps. 3 7/8" x 3 3/4". Mounting centers 3 1/8" x 2 3/4". Shpg. wt. 10 lbs. 99N5041..... **5.26**

### OUTPUT TRANSFORMER



Single ended secondary, with impedance of 4 ohms. Unshielded strap type mounting. Color coded leads. X176—2000 ohms } Each  
X177—5000 ohms } **45c**

X176—7000 ohms.....  
X179—10000 ohms.....

### 4 HENRY 500 MIL. CHOKE



Heavy duty. 500 ma. 12 ohms DC resistance. Wax coated to withstand effects of moisture. Overall size: 3 1/8" x 3 1/2" x 4". Mtg. centers 1 3/4" x 3". 99N6594..... **3.95**

### VIBRATOR TRANSFORMER



Primary 24 V CT. Secondary 300 V CT. 60 MA. Hermetically sealed in Black crackle metal case. Eight 5/32" mtg. holes for upright or inverted mtg. 3 3/4" x 3" x 2 5/8". 99N5097..... **59c**

### 7.5 HENRY CHOKE



20 ma. 330 ohms DC resistance. Overall size: 2 1/2" x 1 1/8" diameter. 99N6597..... **29c**

## SPECIAL FEATURE!

### ALNICO V OVAL SPEAKER



Alnico V 1.47 oz. 4x8 rectangular mount with 3 5/8" x 4 5/8" mounting centers. Dustproof spider and voice coil. 3-4 ohms V. C. impedance. Rated 3 watts. 4 1/2 peak. Voice coil terminals on transformer mounting. Less transformer. 99N7012..... **1.39**

### ALNICO PM SPEAKERS



New Alnico V magnet provides max. performance with min. weight. Ideal as replacements in radios, record players and auto radios. Voice coil terminals on transformer bracket. 3.2 ohms V.C. imp. Less transformer.

99N7011—3-inch PM ..... **1.29**  
99N7009—5-inch PM ..... **1.39**  
X144—6-inch PM ..... **2.10**  
X145—8-inch PM ..... **2.45**

### 5" 3000 OHM SPEAKER

5" dynamic speaker for general replacement. Flat response covering from 100 to 4500 c.p.s. Formed one piece cones, 3000 ohm field. Less transformer. X148—Shpg. wt. 3 lbs. .... **1.39**

### 15" 450 OHM SPEAKER

For general replacement purposes in radios, record players, paging, intercom systems. Response 100 to 4500 cps. Rated 2 1/2 watts. Field coil 450 ohms. X187—Shpg. wt. 3 lbs. .... **1.75**

### POWER TRANSFORMER



Double shell mounting electrostatically shielded. Primary for 117 volt 60 cycle AC. Secondary outputs: 290 V CT at 50 ma. filament 6.3 V CT at 2 amp. 5 V. at 2 amps. 99N6593—Shpg. wt. 2 lbs. .... **1.79**

### OUTPUT TRANSFORMER



Tube to 200 ohm line. Primary impedance 2500 ohms. Secondary impedance 200 ohms. Colored leads, red, yellow, blue for primary. Black, yellow for secondary. 99N5109..... **15c**  
10 for..... **1.35**

### 10 HENRY CHOKE



40 ma. 260 ohms DC resistance. Excellent filter for auto; AC-DC radios. Size: 1 3/8" x 1 1/4" x 1 5/8". Shpg. wt. 1 pound. 99N1601..... **39c**

### 30 HENRY CHOKE

50 ma. 450 ohms DC resistance. Unshielded, strap type mtg. 2 1/2" x 1 3/4" x 2 1/8". 98N248—Shpg. wt. 2 pounds..... **73c**

### 6 HENRY CHOKE

50 ma. 300 ohms DC resistance. Unshielded strap type mtg. 1 5/8" x 2 7/8" x 1 1/2". 98N2075—Shpg. wt. 1 lb. .... **49c**

### FILTER CHOKES

4 henries, 150 ma. 100 ohms DC 99N6589..... **89c**  
8 henries, 150 ma. 200 ohms DC 98N608..... **1.09**  
10 henries, 70 milliamps. 400 ohms DC resistance. Mounting centers 2 1/8". 99N6598..... **73c**

## SPECIAL FEATURE!

### 5" PM SPEAKER WITH TRANSFORMER



Ideal for replacement in radio receivers and intercom systems. High quality high permeability magnet. Formed one piece seamless cone. Dustproof spider and voice coil construction for continued hi-fidelity reproduction. Normal output capacity 2-watts. Voice coil impedance 3.2 ohms. Output transformer matches 50L6 or 50B5 tubes. 99N7016—Shpg. wt. 3 lbs. .... **1.59**

### 225 OHM 5" DYNAMIC SPEAKER



For replacement in radio receivers, intercommunication and paging systems. 225 ohm 5" dynamic heavy pot, hum bucking coil and double shielded transformer to match output impedance of 50L6. Excellent for voice and music. 99N7013..... **1.65**

### SPEAKER GRILLE CLOTH

Fine high quality, long wearing material. Attractive gold-brown color. 7x9 1/2". 99N6989—Shpg. wt. 2 oz. .... **15c**

### POWER TRANSFORMER



Bargain special power transformer at an unbelievably low price. Heavy duty model completely enclosed and electrostatically shielded. Excellent for replacement in radio receivers and public address units with up to 16 tubes. Pri: 110 V. 60 cyc. Sec: 850 V. CT at 200 ma. Filaments 5 V. at 3 amps. 6.3 V. at 5 amps. Mtg. ctrs. 00x00". 99N6592—Shpg. wt. 10 lbs. .... **4.95**

### OUTPUT TRANSFORMERS



Single 1DS, 1LB4, 1J5, 1T5, 12A7, 38 to voice coil. Pri. 16,000 ohms 10 ma. DC max. Sec. 3.2 ohms, 2 watts. Mtg. 2". 99N6591..... **45c**  
Push pull 6K6, 41. Pri. 12,000 ohms CT, 35 ma. DC max. Sec. 3.2 ohms, 8 wt. 99N6590..... **45c**

### TUBE TO 500 OHM LINE OUTPUT TRANSFORMER



Primary 15,000 ohms, 10 ma.; secondary 500 ohms. Enclosed, hermetically sealed, 4 solder lugs. For remote fine, and pre-amplifiers. 2 1/4" x 1 1/2" x 1 1/2". 99N5125..... **59c**

### 15 HENRY, 50 MA. TOTALLY ENCLOSED CHOKE



120 ohms D.C. resistance. Fully shielded, strap type mounting. Compact, efficient, and has many uses. 1 5/8" x 2" x 1 1/4". 99N6550..... **69c**

### FILAMENT TRANSFORMERS



1600 V. test. Pri. 115 V. 60 cyc. Sec. 2.5 CT, 5.3 amp. 99N6595..... **79c**  
Pri. 115 V 60 cyc. Sec. 6.3 V CT, 2.4 amp 1600 V test. 99N6596..... **1.09**



# VALUE-PACKED BARGAINS



## SPECIAL FEATURES

### 100 MFD. CONDENSER

1. Top quality 100 mfd. 50 DCWV. electrolytic.  
 89N3216—1" dia. x 2½" can..... **9c**

### 20 MFD. CONDENSER

2. Well known make. 20 mfd. 150 DCWV.  
 89N3223—Size: 11/16" dia. x 2"..... **19c**

### SPECIAL VALUE CONDENSERS



Exceptional opportunity for servicemen, experimenters to have a stock of popular condensers at money saving values. Midgets have bare wire leads. Can types are hermetically sealed, with spade mounting lugs. Polarity is clearly indicated. Order all you need now at these special low prices.

A variety of capacitors for every purpose at low prices.

Stock No.	Mtg. Type	Cap. Mfd.	DC WV	Size	Each
98N3156	2	10	450	13/16" x 2 1/8"	19c
99N3224	2	16	450	7/8" x 3"	29c
99N3222	3	20-20	150	7/8" x 2 1/2"	35c
99N3225	2	40	150	3/4" x 2 1/2"	23c
98N3158	2	40	450	1 1/8" x 3 1/2"	36c
99N3226	3	50-30	150	1 1/8" x 3"	39c
99N3219	1	16	500	1 1/8" x 2"	29c
99N3053	1	100-100-50-20	50	1 1/4" x 3"	17c



### STANDARD BRAND CONDENSERS

Servicemen! Extra special values in condensers. These prices give you over 60% discount from list price.

Now is the time to stock up on all the popular sizes of nationally known condensers at this tremendous saving.

Stock No.	Cap.	W.V.D.C.	Each	Ea. Lots/10
X-100	10	25	30c	27c
X-101	25	25	34c	31c
X-102	50	25	40c	36c
X-103	10	50	32c	29c
X-107	8	150	32c	29c
X-108	12	150	34c	31c
X-109	16	150	36c	33c
X-110	20	150	38c	34c
X-112	40	150	44c	40c
X-114	12	250	40c	36c
X-115	16	250	44c	40c
X-116	20	250	48c	44c
X-117	8	350	36c	33c
X-118	12	350	44c	40c
X-119	16	350	50c	45c
X-123	10	450	42c	38c
X-124	12	450	46c	42c
X-125	16	450	54c	49c
X-126	20	450	60c	54c
X-127	16	500	80c	72c
X-128	5-5	50	44c	40c
X-129	10-10	50	46c	42c
X-130	8-8	150	46c	42c
X-131	8-16	150	48c	44c
X-132	20-20	150	52c	47c
X-134	8-16	200	52c	47c
X-135	12-12	200	52c	47c
X-136	16-16	200	60c	54c
X-138	8-8	450	68c	61c
X-139	8-16	450	80c	72c

### MIDGET PAPER CONDENSERS

Ideal for hearing aids, and personal radios. Miniature capacitors with ends sealed in bakelite resinoid. Withstands 95% humidity.

Will withstand up to 100 degrees centigrade. Leads will not pull out at high temperatures. Non-inductive pre-tinned copper wire leads. Units are conservatively rated at 150 volts.

5N3192—.001 mfd. Size: 5/8" x 3/8"	} <b>10c</b>
5N3159—.002 mfd. Size: 3/4" x 3/8"	
5N3160—.005 mfd. Size: 3/4" x 3/8"	
5N3161—.006 mfd. Size: 3/4" x 1/2"	
5N3193—.01 mfd. Size: 3/4" x 1/2"	
5N3194—.02 mfd. Size: 3/4" x 3/8"	
5N3162—.05 mfd. Size: 3/4" x 3/8"	} <b>11c</b>
5N3163—.1 mfd. Size: 3/4" x 1/2"	



## SPECIAL FEATURES

### SPECIAL PHOTOFLASH CONDENSER

3. 7 mfd. at 2500 volts DC peak. Rated 21.9 watt sec.  
 89N3240—2 1/2" x 5". Shpg. wt. 2 lbs..... **1.95**

### MOTOR REPLACEMENT CAPACITOR

4. Oil filled. 3.5 mfd. 330 volts AC. Solder lug.  
 98N2981—2" x 1 3/4"..... **39c**



### PLASTIC CASED ELECTROLYTICS



Highly efficient electrolytics encased in gleaming plastic. Designed for inverted mounting. 100% moisture proof and will withstand extremes of heat. Rated at 450 V DCWV, 600 volts peak. Insulated wire leads. 1 3/8" x 3 1/2".

98N2384—10 Mfd. .... **49c**  
 99N2385—12 Mfd. .... **59c**  
 98N2389—20 Mfd. .... **69c**

### DRY ELECTROLYTIC CONDENSERS



Metal can type in insulated cylindrical screw base aluminum can. 6" insulated leads. Protected against humidity. Upright mounting.

98N809—8 mfd. 450 DCWV..... **49c**  
 98N810—16 mfd. 450 DCWV..... **59c**  
 98N811—20 mfd. 450 DCWV..... **69c**  
 98N812—30 mfd. 450 DCWV..... **79c**

### OIL FILLED PAPER CONDENSERS



Capacity .05 mfd. 600 DCWV. Size: 1 1/8" x 1 3/4".  
 99N3213—With Mounting Bracket.. } Ea. **9c**  
 99N3214—Without Mounting Bracket }

### METAL TUBULAR CONDENSER



Low voltage, low capacitance condensers for use as filters in low voltage power supplies and in cathode bias circuits. Capacity 25 Mfd. 25 DCWV. Lug terminals. 3/8" dia. x 4 7/8".  
 99N3242..... **10c** 10 for..... **90c**

### PAPER BY-PASS CONDENSERS

Top quality, popular make condensers at new, unbelievably low prices. Most used sizes by servicemen and experimenters.

Stock No.	Mfd.	DCWV	Each	10 for
98N3089	.0005	400	4c	35c
98N3804	.001	400	4c	35c
99N3297	.01	400	4c	35c
99N3298	.03	400	4c	35c
98N3087	.05	200	3c	25c
99N3295	.2	200	3c	25c
99N3296	.5	200	3c	25c

### CASED PAPER CONDENSER



Oil impregnated and wax filled. Fully cased and sealed to prevent melting of wax. Capacity 2 mfd. 400 DCWV. 2 3/8" x 1 5/8" x 5/8".  
 98N2780..... **69c**

### CARDBOARD ELECTROLYTICS



Compact cardboard tube electrolytics with universal mounting lugs, that can be soldered on top of chassis, anchored with screws or extended through holes in chassis. Separate negative and positive leads sealed in high melting point compound. 450 DCWV.  
 98N2663—8 mfd. Size: 3/4" x 2 1/2"..... **42c**  
 98N2664—16 mfd. Size: 7/8" x 2 1/2"..... **52c**

### OIL IMPREGNATED TUBULARS



Compact, non inductive, low power factor.  
 98N3252—.01 mfd. 1500 DCWV. } Each

98N3254—.05 mfd. 1000 DCWV..... } **19c**  
 98N3257—.1 mfd. 1000 DCWV..... }

### CERAMIC CONDENSERS



Extremely compact and stable. Flash tested at 1400 V, 500 DCWV. Leakage resistance 10M meg.

98N3558—20 mfd. ±20%. Size: .45" x .21"..... } **3c**  
 98N3559—50 mfd. ±20%. Size: .45" x .21"..... } **3c**  
 98N3561—120 mfd. ±2 1/2%. Size: .835" x .225"..... } 10 for **25c**



# SPECIAL MONEY-SAVERS



**SPECIAL FEATURE!**

## TRANSMITTING CONDENSERS

2 mfd. 600 volt oil filled condenser. Cornell-Dubilier T.J.L. 6020, Less mtg. bracket. 1x1 3/4x2 3/8".

- 99N3014—Shpg. wt. 1 lb. **59c**
- 4 mfd. 600 volt oil filled. Solder lugs. 3 3/8x1 1/4x2 1/2". **79c**
- 99N3288—Shpg. wt. 1 lb. **1.20**
- 10 mfd. 600 volt oil filled. Scr. term. in porc. 5 1/2x2 3/4x1 1/4. **1.95**
- 99N3289—Shpg. wt. 2 lbs. **79c**
- 16 mfd. 600 volt oil filled. Solder lugs. 5 1/4x2 3/4x2 1/8". **79c**
- 99N3290—Shpg. wt. 3 lbs. **79c**
- 2 mfd. 850 volt oil filled. Scr. term. in porc. 4 1/2x1 3/4x1". **79c**
- 99N3291—Shpg. wt. 1 lb. **79c**
- 1 mfd. 1000 volt oil filled. Scr. term. in porc. 3x1 3/4x1". **79c**
- 99N3292—Shpg. wt. 1 lb. **1.59**
- 10 mfd. 1000 volt oil filled. Solder lugs. 5x3 3/4x2 1/4". **1.39**
- 99N3293—Shpg. wt. 3 lbs. **1.39**
- 2 mfd. 1500 volt oil filled. Scr. term. in porc. 3 1/4x2 1/2x1 3/8". **1.39**
- 99N3552—Shpg. wt. 2 lbs. **1.39**

## OIL IMPREGNATED PAPER CONDENSER

1. Cylindrical type can, solder lugs. 2 mfd. at 600 W.V. DC. 1 1/2" dia. x 2 3/4".

99N3238..... **39c**

## 4 MFD. 600 VOLT OIL TYPE CAPACITOR

2. 4 mfd. 600 working volts, DC. Oil filled, impregnated! Hermetically sealed with synthetic rubber gasket. 4 1/2"x1 1/2".

99N3164..... **59c**

## .25 MFD CONDENSER

3. 1000 volt oil filled and impregnated. Porcelain standoff insulators with solder lugs, locknuts. 3x3 3/4x1".

98N2316—Shpg. wt. 8 oz. .... **19c**

## .5 MFD CONDENSER

4. 1500 DCWV metal encased condenser. Stand-off insulator terminals, 8-32 screw. With mtg. hdwe. 3 1/4x 1 3/4x1".

99N2968—Shpg. wt. 0 lbs. .... **39c**

## F. P. TYPE CONDENSER

5. Dual section 70 and 30 mfd. at 150 V. Solder lug terminals, common ground. Metal can, cardboard covered. 1 1/8" dia. x 3 5/8".

99N3278..... **79c**

## 2500 MFD 15 VDC CONDENSER

6. Heavy plastic cased tubular. Solder lug terminals. 1 3/8" dia. x 3 3/4".

99N3279..... **59c**

## 7. OIL-FILLED BATHTUB CONDENSERS

No.	Illus.	Mfd.	Volts	
99N3252	8	.1	600	39c
99N3246	7	.5	600	49c
99N3248	7	1.	600	59c
99N3251	8	1x.1	600	44c
99N3258	7	2x.2	600	49c
99N3257	8	1x.1x.025	400	29c
99N3250	8	25	25	19c

## 8. UNIVERSAL MTG. TYPE

No.	Mfd.	DCWV	Size	Each
98N4705	8	600	1 3/8x4 1/2	98c
98N4706	8	450	1 3/8x4	42c
98N4712	40	450	1 3/8x4	69c
98N4713	8-8	450	1 3/8x4	79c

## 24 MFD DRY ELECTROLYTIC

Dry electrolytic tubular. 150 DCWV, 225 V peak. 3-in. pigtail leads. 3/4" dia. x 1 3/4" long. 99N3256..... **25c**

## SILVER MICA CONDENSERS

Molded bakelite silver mica condensers. All individually tested for accuracy of capacity, voltage breakdown and leakage. All rated at 500 volts DC working are 1000 volt test, those tested at 300 volts DC working are 600 volt test.

Stk. No.	Mfd.	WVDC	Type	Price
99N3270	.000075	500	O	Each <b>6c</b> 10 for <b>54c</b>
99N3267	.00005	300	O	
99N3265	.000025	300	O	
99N3272	.0001	300	O	
98N3448	.000125	500	O	
99N3230	.00015	500	O	
98N3502	.00033	500	O	Each <b>8c</b>
98N3531	.00082	500	O	10 for <b>72c</b>
98N3386	.001	300	O S S	Each <b>15c</b> 10 for <b>1.35</b>
99N3231	.0011	500	S S S	
99N3232	.0019	500	S S S	
99N3268	.0022	300	S	
99N3233	.0038	500	S S S	Each <b>24c</b> 10 for <b>2.15</b>
99N3234	.004	500	S S S	
99N3271	.0049	300	S S S	

## MOLDED BAKELITE MICA CONDENSERS

Stk. No.	Mfd.	WVDC	Type	Price
98N3397	.000047	500	O	Each <b>4c</b> 10 for <b>35c</b>
98N3485	.000025	500	O	
98N3430	.000027	500	O	
98N3572	.000035	500	O	
98N3488	.00005	500	O	
98N3489	.000075	500	O	
98N3375	.000125	300	O	
98N3479	.00015	500	O	
98N3491	.00015	500	O	Each <b>5c</b> 10 for <b>45c</b>
98N3494	.0003	500	O	
98N3496	.0005	500	O	
98N3456	.0005	500	W	
99N3254	.001	500	O	Each <b>6c</b> 10 for <b>50c</b>
98N3463	.0015	500	O	
98N3385	.0068	300	O	
99N3253	.01	300	S	Each <b>9c</b> 10 for <b>80c</b>

## 9 WATT POTENTIOMETER

9. Smooth acting 185 ohm control, with S.P.S.T. switch. 2 1/8" dia. x 1" Shaft 1/4" lg. 3/8-32 threaded mounting bushings.

98N8143—Ea. 19c; Lots/10, Ea. **15c**

## 1000 OHM POTENTIOMETER

10. Fully enclosed smooth action carbon type control. Body 1" diameter x 1/2" deep. Shaft 1/4" diameter x 1 3/4" long.

98N8108—Each 23c.....Lots of 10, Each **20c**

## 1000 OHM POTENTIOMETER

11. Nationally known. With SPST switch, 3/8"-32 threaded mounting bushings, solder lug terminals. Body 1" dia. x 7/8". Shaft 1/2" dia. x 1 3/4" long.

98N8124—Ea. 33c; Lots/10, Ea. **30c**

## WIRE WOUND POTENTIOMETER

12. Smooth acting control. 200 ohm, 2 watt wire wound potentiometer. Body size: 1 1/4" diameter x 5/8" deep. Shaft: 3/4" x 1/4" diameter. Standard 3/8"-32 threaded mounting bushing.

98N6350—Each 10c.....Ea. lots/10..... **8c**

## 3 WATT RHEOSTAT

13. An exceptional value, smooth acting 20 ohm wire wound control, 1/4" dia. x 3/4" long flatted shaft. 1 1/8" dia. x 3/8".

98N8163—Each 10c.....Ea. lots/10..... **8c**

## AIR PADDER CONDENSERS

Ideal for circuits requiring constant capacity under all conditions. 9-100 mmfd. 1 7/8" deep. Fits 1 1/2" dia. forms.

98N10091—Each..... **49c**

## RENEWABLE FERRULE TYPE FUSES

U. L. inspected. For laboratory and industrial use. For 250 volt circuits, 2" long. Wt. 3 oz.

98N12375—3 amps..... } Each  
98N12376—6 amps..... } **5c**





# CUT-PRICE MONEY-SAVERS



**SPECIAL FEATURE!**

### IF TRANSFORMER

High gain, permeability tuned. 375 KC normal peak, satisfactory operation at 455 KC peak. Screwdriver slot adjustments—one on top, one on bottom. 5 solder lug terminals on bottom.  $1\frac{1}{2} \times 1\frac{1}{2} \times 2\frac{1}{4}$ ". 2 spade mtg. studs  $6-32 \times \frac{3}{8}$ " on  $1\frac{3}{8}$ " mtg. centers.

99N5129—Each **39c**... 10 for **3.50**

### CERAMIC MICA TRIMMERS



Excellent units for replacement use. All will work to minimum and maximum capacities as specified below. Single trimmers wt. 1 oz.

- Single Trimmers, 75-145 mmf, strip. 99N9762.....3c 10 for.....25c
- Single Trimmers, 145-270 mmf. 99N9763.....3c 10 for.....25c
- Single Bakelite Trimmers, 5-40 mmf. 99N9529.....3c 10 for.....25c
- 25-100 mmf, 100-200 mmf, and 5-250 mmf. 99N9523.....3c 10 for.....45c
- Dual 3.5-10 mmf and 145-279 mmf. 99N9768.....5c 10 for.....45c
- Dual 50-225 mmf each section. 99N9520.....5c 10 for.....45c
- Dual 10-50 mmf and 50-200 mmf. 99N9522.....5c 10 for.....45c

### TRIMMER ASSORTMENT

20 Assorted Trimmers, Padders. Most are standard ceramic. 99N10203..... **59c**

### LITZ WOUND AC-DC COILS

Hi-gain, unshielded. 175-550 meters. Hi-impedance pri., 4 bank Litz wound sec. Tunes with .000365 mfd. cond.

- 99N10012—Antenna Coil..... **35c**
- 99N10095—R. F. Coil..... **35c**
- 99N10096—Set of 2..... **67c**

### RF CHOKE

High quality choke. Inductance 1 mh. at current rating of 300 ma. Non-removable insulator, cotter pin lug terminals for easy hookup.

99N3241..... **10c**

### PRECISION RESISTOR ASSORTMENT

10 assorted precision resistors. Accuracy from .1% to 2% as marked on each. Tinned copper wire leads, single hole mtg.

99N6988—Wt. 8 oz **69c**

### ROTARY SELECTOR SWITCH

Non-shorting. 6 circuit 4 position gang switch.  $1-15/16"$  W,  $1\frac{1}{2}"$  H,  $3"$  D behind panel. Shaft  $\frac{1}{4}"$  dia, x  $\frac{3}{8}"$ .

99N4177..... **39c**

### SPST LOCKING TYPE SWITCH

Cam actuated switch 125 V at 3 amps 99N12597..... **5c**  
10 for..... **45c**



**SPECIAL FEATURE!**

### 0-150 AC VOLTMETER

Black bakelite. Has  $2\frac{3}{4}"$  panel opening.  $3\frac{1}{2}"$  flange. White scale, black lettering. Range: 0-150. 99N4217..... **5.95**



### SIMPSON 0-3 DC VOLTMETER

1. Model 126. Full scale deflection 8 ma. +2%, reading 0-3 V. Round, Black scale, White lettering.  $2\frac{1}{2} \times 1\frac{1}{2}"$ . 99N4207—Shpg. wt. 1 lb..... **1.79**

### TRIPLETT 0-3 DC VOLTMETER

2. Model 0221T Same characteristics as above Round face, black scale 99N4206—Shpg. wt. 1 lb..... **1.79**



### 0-30 AC AMMETER

Full scale deflection 30 amps. Panel opening  $2\frac{3}{4}"$  dia,  $3\frac{1}{4}"$  flange. 99N4218—Shpg. wt. 1 lb..... **4.95**

### 0-4 AMP RF METER

Built in thermo-couple. G. E. type DN-56. Black scale,  $2\frac{1}{2}"$  round flange. 99N4203—Shpg. wt. 1 lb..... **2.25**



### DC MILLIAMMETER

5. 1000 DC MA full scale deflection. White scale, black lettering.  $3\frac{3}{8}"$  flange drilled for panel mounting. 99N4204—Shpg. wt. 1 lb..... **1.95**

### 0-20 DC MILLIAMMETER

6.  $2\frac{1}{2}"$  flange mtg. type. Black bakelite case. Hardware included. 99N4122—Shpg. wt. 1 lb..... **2.59**

### G. E. DWS3 TUNING METER

7 divisions. Marked "Tuned for Max." Radium pointer.  $2\frac{1}{2} \times 1\frac{1}{2}"$ . Aircraft type mtg. 99N4212..... **98c**

### PUSH-PULL SWITCH

Auto dashboard type.  $\frac{3}{8} \times \frac{3}{2}$  thr. bushing,  $1\frac{1}{8}"$  long.  $3 \times 1\frac{1}{2}"$  dia. 99N4182..... **39c**

### METER SHUNT KIT

Ten assorted precision meter shunts for light duty applications under 500 milliamperes. With solder lug. 99N6977... **25c**



**SPECIAL FEATURE!**

### IF TRANSFORMERS

Air core, condenser tuned, shielded IF. 456 KC normal peak. Standard spade mtg. lugs. Can size:  $1\frac{3}{8} \times 1\frac{3}{8} \times 3"$ .

99N10069—Input (A)..... **39c** Each  
99N10070—Output (A)..... **39c** Each

### 456 KC IF TRANSFORMERS

Permeability tuned, shielded. Spade mtg. lugs. Can:  $1\frac{1}{2} \times 1\frac{1}{2} \times 3\frac{1}{2}"$ . 99N5098—Input (B)..... **49c**

### RADIO-PHONO SELECTOR

Replacement radio-phono selector switch, 3 pos. 10 pt. AC switch closed in third position. 99N4172..... **29c**

### MOMENTARY PUSH SWITCH

Single circuit, momentary contact. Normally closed. Bushing  $\frac{3}{8}"$  dia.,  $\frac{5}{8}"$  long with lug terminals. Rated at 1 amp, 125 volts. 99N12675..... Each **10c**  
10 for..... **90c**

### NICKEL PLATED TOGGLE SWITCH

Metal parts. 3 amps at 250 V. stem  $\frac{1}{8}"$  dia. x  $1"$ . 99N12835—Each..... **18c**  
10 for..... **1.52**

### S-PUSH-BUTTON SWITCH

Each button DPDT, all common in normal position. Shafts extend  $2\frac{1}{4}"$ . 99N12592..... **9c**



- 1. 5-pole, 2 pos. Rotary switch,  $\frac{3}{8}"$  bush. 99N4183—Shpg. wt. 2 oz..... **19c**
- 2. Slide Switch. DPDT for med. cur. circuits. Ribbed bakelite lever  $\frac{3}{8}"$  above surface.  $1\frac{1}{8} \times \frac{1}{2}"$ , requires  $\frac{7}{8}"$  behind panel. Solder lug ter. pretinned. 99N4174—Shpg. wt. 4 oz..... **19c**
- 3. 6-Push-Button Switch. One button 3-pole double throw, rest double pole, single throw. Non-shorting. Less knobs. 99N5982..... **24c**



- 4. Non-shorting ceramic gang switch. Silver plated contacts, lugs. 99N5922—6 pole, 3 pos..... **19c**
- Non-shorting type rotary switch. 99N4184—4 pole, 2 pos..... **17c**
- 5. Midget knife switch. DPST panel mount.  $1\frac{3}{4} \times 1\frac{1}{2}"$ . With mounting nuts. X215..... **15c**
- 6. Lever action, non-shorting switch. 99N4178—4 pole, 2 pos..... **29c**

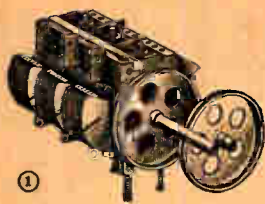


### PUSH BUTTON SWITCHES

- 7. Solder lug term. Leaf spring momentary action. Requires  $\frac{3}{8}"$  behind panel. 99N4175—SPDT..... **17c**
- 99N4179—SPDT—with interlock..... **24c**
- 99N4181—DPDT..... **29c**
- 8. Mounts on surface.  $1\frac{3}{4}"$  mtg. centers.  $2\frac{1}{2} \times \frac{7}{8} \times \frac{7}{8}"$  high screw terminals. 99N4176—Shpg. wt. 2 oz..... **12c**

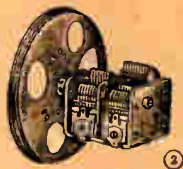


# BEST BUYS OF THE YEAR



## 3 GANG CONDENSER WITH BANDSPREAD

7. Capacity 353 mmfd. maximum each section. For accurate tracking, bandsread capacitance 20 mmfd. maximum. Constructed for use in communications superhet receivers, test equipment, amateur superhet receivers. Single-spaced aluminum plates with low loss bakelite insulation. Brass shafts mounted on ball bearings, ball thrust adjustment. 2" dial cable pulley mounted on each shaft.  $4\frac{7}{8} \times 3\frac{1}{2} \times 2\frac{3}{4}$ ".  
99N3563—Shipping weight 2 lbs..... **79c**



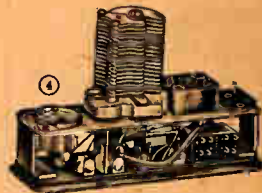
## 2 GANG CONDENSER WITH BANDSPREAD

1. Section one 39.7 mmfd. minimum to 353.4 mmfd. maximum. Bandsread capacity for each section 20 mmfd. Similar to above. Well suited for use in portable or small superheterodyne receivers. Single spaced aluminum plates with low loss bakelite insulation. Both shafts are mounted on ball bearings and with ball thrust adjustment. Two inch dial cable pulley mounted on each shaft.  $4 \times 2\frac{1}{2} \times 2\frac{1}{2}$ ".  
99N3562—Shipping weight 2 lbs..... **49c**



## 2-SECTION BROADCAST TUNING CONDENSER

2. RF 420 mmfd., oscillator 162 mmfd. Trimmers each section 20 mmfd. Ball bearings with ball end thrust adjustment. Body  $1\frac{3}{4} \times 1\frac{5}{8} \times 2\frac{3}{8}$ ". Shaft extends  $\frac{3}{4}$ ". Permanently installed 3" cable drum. Ideal for small receivers, portable radios.  
99N3569—Shipping weight 1 lb..... **89c**



## DUAL CONDENSER

3. Max. each section 2.8 mmfd., min. .2 mmfd. Mycalex coupling isolantite end plates. Low loss bakelite base removable and sections used separately.  $\frac{1}{4}$ " shaft.  $1\frac{1}{8} \times 1\frac{1}{8} \times 4$ ".  
99N3503—Shipping weight 8 oz..... **59c**

## SPECIAL FOUNDATION ASSEMBLY

4. For transmitter or receiver. Metal frame, 10 contact female receptacle. 140 mmfd. variable condenser at top. Coil socket, dual crystal socket, male contact. Spring locking clip.  
99N3553—Size:  $4 \times 1\frac{1}{4} \times 2\frac{3}{4}$ ". Shipping wt. 1 lb..... **22c**



## STEATITE NEUTRALIZING CONDENSER

5. Variable from 3 to 11 mmfd. by plunger action. For neutralizing low power amplifier stages. Mounts in  $\frac{3}{8}$ " hole.  
99N3171—10 for 45c..... Each **5c**

## JOHNSON VARIABLE CONDENSER

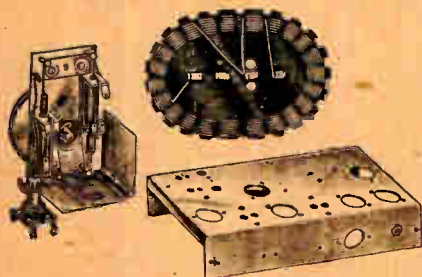
6. Rugged compact unit for use in medium, low power transmitters. .032" thick aluminum plates. Steatite insulation. Heavy phosphor bronze contact springs. Capacity 12 mmfd. to 244 mmfd. .045" spacing. Approximate breakdown voltage is 2000 volts. Slotted shaft  $\frac{1}{4}$ " diameter,  $\frac{1}{4}$ " long.  
99N3572—Shipping weight 2 lbs..... **98c**

## 3 GANG CALIBRATED CONDENSER

7. Two 250 mmfd. sections and one 260 mmfd. 4" dia. dial, vernier gear drive.  $\frac{1}{4} \times \frac{3}{8}$ " shaft. Ceramic insulation.  
99N3559—Shipping weight 7 lbs..... **1.39**

## SINGLE SECTION CONDENSER

8. Capacity 500 mmfd. Ideal for low or medium power transmitters, and test equipment. Steatite insulation.  $2 \times 1\frac{1}{8} \times 6\frac{5}{8}$ ".  
99N3571—Shipping weight 2 lbs..... **89c**



## PERMEABILITY TUNER

For use in standard broadcast receivers for replacing variable condenser, associated coils with a single unit. All are simultaneously slug tuned. Each can be individually adjusted for tracking alignment. Complete with antenna coil, oscillator coil, oscillator padder coil and schematic diagrams for building 5 and 6 tube superhet receivers.  $4 \times 2\frac{1}{2} \times 2\frac{1}{4}$ ". Dial drum  $2\frac{1}{2}$ ".  
99N3574—Shpg. wt. 2 lbs..... **1.29**

## PUNCHED ALUMINUM CHASSIS

Quality aluminum chassis punched and drilled for 5 or 6 tube permeability tuned receiver. Size  $5 \times 10 \times 2$ ".  
99N9579—Shpg. wt. 1 lb..... **29c**

## LOOP ANTENNA

Matches input impedance of permeability tuner at left. Finest copper wire on sturdy fibre board.  
99N3575—Shpg. wt. 1 lb..... **19c**

## BAKELITE RADIO KNOBS

Molded and polished walnut bakelite knobs for  $\frac{1}{4}$ " shafts. "A" is spring clip push on type,  $1\frac{7}{8}$ " dia. "B" is for knurled shafts, 1" dia.

No.	Type	Each	10 for	100 for
99N9625	A	5c	40c	3.00
99N249	B			



## 154 TUBE SHIELDS

Highest quality miniature tube shields for use with such tubes as 1S4, 1R5, 1T4, etc. All aluminum construction with retainer spring inside. For use in portables and auto radios. Also prevents tubes from coming loose in sockets.  $\frac{3}{4}$ " dia. x  $1\frac{1}{4}$ ".  
99N7020—Each..... **4c**  
10 for ..... **30c**





# MONEY-SAVING SPECIALS

## SPECIAL VALUE TUBES!

**OD/3 VR-150 VOLTAGE REGULATOR**  
Used extensively in amateur receivers.

X205..... **49c**

**6V6GT BEAM POWER AMPLIFIER**  
Output amp. for auto, battery radios.

X206..... **59c**

**6L6 MINIATURE TWIN TRIODE**  
RF amp. osc. or push-pull audio amp.

X207..... **65c**

**1624 BEAM POWER AMPLIFIER**  
Quick heating, coated filament type.

99N2901..... **69c**

**3E29 AIR COOLED PENTODE**  
15 watt beam power amp. DC pl. V 5000.

99N2900..... **2.89**

**7193 UHF TRIODE**  
Ultra high frequency triode amplifier.

99N2902..... **19c**

**954 DETECTOR AMP. PENTODE**  
Frequencies to 430 MC. Htr. Cath. type.

99N2903..... **49c**

**EIMAC 15E HI-MU TRIODE**  
20 watt transmitter power amplifier.

99N2904..... **1.25**

**TUBES AT BARGAIN PRICES**  
Servicemen, amateurs, and experimenters—here is the opportunity to stock up on these popular receiving and transmitting tubes at real money-saving low prices. Some are bulk packed but the majority are individually boxed.

No.	Type	Each	Lots/10
X189	1L4	49c	4.50
X190	2B7	49c	4.50
X191	2V3G	69c	6.20
X192	3Q4	49c	4.50
X193	3S4	39c	3.50
X194	6AE5GT	39c	3.50
X195	6B8G	49c	4.50
X196	6H6	49c	4.50
X197	6SD7GT	39c	3.50
X198	6SH7GT	39c	3.50
X199	6Y6G	69c	6.20
X200	12A6	79c	7.10
X201	12C8	79c	7.10
X202	12H6	49c	4.50
X203	12SH7	69c	6.20
X204	39/44	39c	3.50



### SHURE RECORDING HEAD

Wide response record cutter, for home recording equipment. Standard replacement for many magnetic cutters. With minor circuit changes replaces crystal cutting heads. Operates directly from voice coil winding of output transformer, high sensitive recording element. Match 4-8 ohm voice coil windings. No mounting brackets. Tapped mounting holes facilitate re-use of brackets on old unit. 2 3/4 x 1/2 x 3/4". With needle screw, 4-inch flexible leads. Less stylus.

99N13799—Shpg. wt. 8 oz..... **1.39**

Lots of 6, each..... **1.19**

### H-H 10-OHM 50-WATT RHEOSTAT



Type B-50, resist. wire toroidally wound around refractory core, embedded in vitreous enamel. Copper graphite contact brush in porcelain holder travels on inside circumference of winding. Max. 2.22 amps., 10 ohms. Mtg. plate. Bush., 3/8 x 1/4". Shaft slotted for screw driver adjust.

99N2120—Ea., Lots/10..13c Each.. **15c**



### 25 WATT RHEOSTAT

Money saving value on wire wound power control. DC resistance. 3 ohms. 1 3/8" diameter x 1 1/8" deep. 1/8" long x 1 1/4" diameter shafts.

99N6839—Ea..... **15c**

Lots of 10, Ea..... **13c**

### 25 WATT POTENTIOMETER



Designed for smooth close control. Resist. 20 ohms. Single hole mounted by 3/8"-32 threaded bushing. Body size: 1 3/8" dia. x 1" deep. 1/8" long shaft.

99N8167—Ea..... **15c**

Lots of 10, Ea..... **13c**

### DUAL CONTROL RHEOSTAT



Heavy ceramic and metal construction. Fully insulated. 1375 ohms each section. 25 watts. Size 1 1/2" x 1 3/8" x 3/8" long shaft. Center off position.

99N8168—Ea. .... **39c**

Lots of 10, Ea..... **35c**

### DUAL POTENTIOMETER



Enclosed smooth action carbon type controls. Front section 2 megohms, rear section 40,000 ohms. 3/8"-32 threaded bushing.

99N8137. 39c Lots/10 ea **35c**

### PEE WEE ANTENNA AND R.F. COILS



Miniature set replacement. Secondaries wound with Litz wire on 1x1 1/2" impregnated forms. Hi-imped. primaries and coupling turns provided for max. response. Covers 540-1500 KC with 365 mmfd condenser. Unshielded.

X216—Antenna ... } Each **39c**

X217—R.F. .... } **39c**

Lots of 10, Ea..... **35c**

### CERAMIC SOCKETS



Low loss. Top and sides glazed. Reinforced springs 2 1/4" long, 1 5/8" wide. Centers 1-27/32".

No.	Prongs	Each	10 for
99N13064	4	15c	1.35
99N13065	5	15c	1.35
99N13067	7s	15c	1.35

### MOLDED SOCKETS



Sockets are made of molded bakelite for top mounting or sub-panel mounting. Positive contacts have 1 1/4 inches mounting centers.

No.	Prongs	Each	10 for
99N13090	4	19c	1.70
99N13091	5	19c	1.70
99N13092	6	19c	1.70
99N13093	7L-S	19c	1.70

### CERAMIC OCTAL SOCKET



Low-loss socket. Has 1 1/2" mtg., centers. Firm gripping positive contacts. Sturdily constructed.

99N13108—Each ... **10c**

Lots of 10, Ea..... **9c**

### OCTAL SOCKET



Octal socket. 1 1/2 inch mounting center. Pins number 4, 6, blank.

99N13180—Each... **4c**

Lots of 10, Ea..... **3c**



### METAL BINDING POST

Metal spring type binding post with engraved bakelite top. The overall length is 1 3/8" in. With 6/32" threaded stud. Slightly imperfect finish. Less mounting nut.

99N13188..... **4c**

10 for..... **35c**

### GENERATOR CONDENSERS

Best quality auto radio condensers at a give away price. Effectively eliminates disturbing generator noises from car radios. Fully shielded. Dirt, oilproof. Cap. .5 mfd.

99N14230—10 for **63c**..... Each **7c**



### INSULATED WRENCH

Hexed entire length; you can cut the worn end and have an entirely new wrench. Hex 1/4 inch. Length is 6 inches.

99N15148..... **12c**



### RED HAIRLINE POINTER



Red hairline pointer 3/8 in. long for use with cable driven slide rule dials have vertical pointer rails.

99N149—10 for **15c**

..... Ea. **2c**

### DIAL SCALE



2 1/2 x 3 1/4" rectangular dial scale for right hand closing broadcast band condensers. Figures from 55 to 170. For AC-DC sets, small portables.

99N147..... **5c**

Lots of 10, Each..... **4c**



### DIAL CRYSTAL

Formed and stamped one-piece dome type plastic crystal for above dial scale. Water-white with 1/4" space for pointer.

99N146—Lots/10, Each **4c**..... Each, **5c**

### 1/4" SHAFT FLEXIBLE COUPLING



Four coupling two 1/4" dia. shafts or for making shaft extensions. Insul.

99N246—Ea..... **18c**

Lots of 10, Ea..... **16c**

### PILOT LAMP SHADE



Designed to fit snugly over the tubular type pilot lamp to concentrate illumination on dial or portion desired. Useful to cover band-switching lamps on lge. multi-band dials.

99N248—Each..... **3c**

Lots/10, Each...2c Lots/100, Each 1c

### NEEDLE CUPS



Open type. Brown finish. Cups 1 1/4" in diameter.

99N130..... **3c**

### MALLORY 24 VOLT VIBRATOR

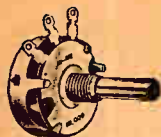


Type M561C. Top quality replacement vibrator at tremendous savings. 5 prong base, 24 volt battery synchronous vibrator. Size 1 1/2" dia., 3 1/2" high.

99N3967..... **39c**



# SAVINGS - PRICED SPECIALS



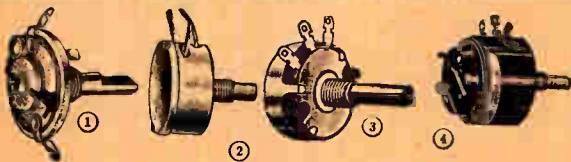
## SPECIAL FEATURE!

### RELIANCE VOLUME CONTROLS

Full length shft. Stand. 3/8" bushing. Switches are affixed, SPST.

Less Switch	With Switch	Res. Ohms	Taper
8N8112	8N8123	25,000	Linear, for voltage-divider circuits.
8N8115	8N8119	50,000	Linear, for voltage-divider circuits.
8N8114	8N8129	100,000	Linear, for voltage-divider circuits.
8N8116	8N8120	250,000	Linear, for voltage-divider circuits.
8N8117	8N8121	500,000	Linear, for voltage-divider circuits.
8N8113	8N8126	500,000	For audio or antenna shunt circuits.
8N8118	8N8122	1 megohm	Linear, for voltage-divider circuits.
8N8105	8N8127	1 megohm	For audio or antenna shunt circuits.
8N8111	8N8133	2 megohm	For audio or antenna shunt circuits.

Less Switch—Each..... **34c**  
With Switch—Each..... **44c**



### 8 OHM RHEOSTAT

1. Popular brand 4 watt wire wound rheostat. 3/8"-32 threaded bushing. Shaft 1/4" dia. x 1". Size: 1 1/8" x 3/8" deep. 98N6337—Each **12c**.....Each, Lots of 10, **10c**

### WIRE WOUND VOLUME CONTROL

2. Smooth acting wire wound 1000 ohm, 4 watt, 3/8"-32 threaded bushings, 1/4" x 3/8" shafts. Body dia. 1 1/8" x 5/8". 99N2096—Each, **24c**.....Each, Lots of 10, **19c**

### POTENTIOMETER

3. Fully enclosed carbon type control. 3/8"-32 threaded bushing. 13,000 ohms, 1 1/8" dia. x 1/2". Shaft 1/4" dia. x 1/2". 98N8158—Each, **10c**.....Each, Lots of 10, **8c**

### POTENTIOMETER WITH SWITCH

4. 160 ohm 4 watt, insulated rotor and switch. Straight taper. 3/8" thr. bush. 1/2" shaft. 5/8" bush. Snap-on switch. 98N8142—Each, **15c**.....Each, Lots of 10 **12c**

### CARBON VOLUME CONTROL

2. Compact 1 1/8" dia., 1/2" deep. 1 Megohm, less switch. 1/2" shaft 1 1/2" lg. Potentiometer taper. Requires 1/2" behind panel. 99N2041—Each **19c**.....Each, Lots of 10 **17c**



### SPST ROTARY TONE SWITCH

5. With rotor grounded to shaft. Standard 3/8" bush., less mtg. nut. 1/4" flatted shaft, 1/2" long to accommodate stand. knob 98N12599—Each, **8c**.....Each, Lots of 10, **6c**

### PRECISION SWITCHES

6. Quick action. 4 oz. pressure. 10 amps at 125 v. AC. 99N4185—SPST..... } Each 5 for..... } **69c**  
99N4186—SPDT..... } Each 5 for..... }

### G. E. SNAP ACTION SWITCHETTE

7. SPST normally closed, momentary mechanism operated by spring return button. Contact tips 99.95% pure silver. 1 amp. 110 volt AC or .5 amp 250 volts AC. Size: 1 1/4" x 1/2". 99N4134..... **19c**

### SPST ROTARY SWITCH

8. Compact, positive contact U. L. switch. Bakelite molded construction. Rated at 1 amp 250 volts; 3 amps 125 volts. 1 1/2" dia., 1 1/8" body depth. 3/8" dia. bush. 1 1/2" shaft. 99N4187—Each, **19c**.....10 for **1.70**

### 3 CIRCUIT MICROPHONE JACK

9. Takes PL-68 type plug only. Has 3/8" bushing for panel mtg. With mounting nuts and washers. Depth behind panel 1" 98N6341—Each, **6c**.....Each, Lots of 10, **5c**



### HANDY TERMINAL STRIP KIT

Kit of 10 assorted. Handy assortment with from 2 to 28 terminals. Hi-quality phenolic insulation with either screw or solder lug terminals. Mounting holes or brackets on each strip. 99N6975—Kit of 10..... **29c**



### KIT OF 25 MICA CONDENSERS

Kit of most popular size bakelite mica capacitors for servicemen, amateurs, and experimenters. Unmarked, but all guaranteed perfect. High quality units at an unusually low price. 99N277..... **49c**



### KIT 25 TUBULAR CONDENSERS

Top quality brand tubular condensers at a real bargain price. Wax impregnated, non-inductively wound. Standard working voltages and capacities range from .002 mfd. to .5 mfd. With long flexible pigtail leads. Individually tested to meet RMA standards. 99N278—Shpg. wt. 1 1/2 lbs..... **97c**



### 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 1/2 to 2 watts. All resistors are RMA color coded. 99N155—Shpg. wt. 1 lb..... **89c**



### VITREOUS ENAMEL RESISTOR KIT

Bargain assortment of 20 high quality vitreous enamel and cement coated wire wound resistors. From 5 to 25 watts. Wide assort. of values. 99N245..... **1.79**



### VOLTAGE DIVIDER KIT

Rated at 10 watts mounted on chassis. Metal mounting strap conducts heat from unit without shorting. Contains 10 wire wound resistors with moulded bakelite cases and metal mounting straps. Includes 5.45, 6, 100/2M, 250, 2500, and 30M ohms. 99N244..... **98c**



### KIT OF 10 MOLDED PAPER CONDENSERS

Popular sizes of molded bakelite cased wax impregnated paper condensers, with axial wire leads. All have RMS color code, and guaranteed perfect. Made by leading manufacturers. Capacitance from .006 to .2 mfd., 200 to 600 volts. 99N6976..... **79c**



### KIT CERAMICON CONDENSERS

10. Kit of 25 popular sizes. All condensers color coded. Flexible pigtail leads. Shpg. wt. 1 lb. 99N279..... **69c**



### VITREOUS ENAMEL RESISTOR

11. 10 watts, 14 ohms. Solder lug term. Center hole or lug mtg. 99N273—Each, **6c**.....Each, Lots of 10, **5c**

### 4 WATT WIRE WOUND RESISTORS

12. Will withstand heavy overloads. ±5%. With pigtail leads. 99N274—1000 ohms.... } Each, **8c**.....Each, Lots of 10, **7c**  
99N275—2000 ohms.... }

### 13. "KOOLOHM" FIXED RESISTORS

99N122—10 ohms, 10 watt..... } **13c** Ea. lot/10..... } **11c**  
99N123—100 ohms, 10 watt..... } Ea. lots/10..... } **11c**  
99N139—200 ohms, 10 watt..... } Ea. lots/10..... } **11c**  
99N124—4000 ohms, 10 watt..... } Ea. lots/10..... } **11c**  
99N134—400 ohms, 5 watt..... } **9c** Ea. lots/10..... } **7c**  
99N135—1000 ohms, 5 watt..... } Ea. lots/10..... } **7c**  
99N137—10,000 ohms, 5 watt..... } Ea. lots/10..... } **7c**



# OUTSTANDING BARGAINS

## ADJUSTABLE S.P.D.T. RELAY



Sensitive relay, 2000 ohm coil. For plate circuits, photo-cell applications. Min. pull-in current only 2.5 ma, 2-mtg. holes.  $3\frac{3}{8} \times 2\frac{1}{8} \times 2\frac{1}{8}$ ".  
99N4033.. **1.49**

## S.P.D.T. RELAY



SPDT contacts of  $\frac{1}{8}$ " diameter fine silver, rated at 550 watts non-inductive load at 60 cycles. Coil operates on 19 to 29 volts 50-60 cycle AC, DC resistance of 50 ohms, 1500 volt insulation.  $2\frac{1}{4} \times 1\frac{3}{8} \times 1\frac{1}{8}$ ".  
99N5950..... **49c**

## HEAVY DUTY STARTING RELAY



12-14 V DC with 13 ohm coil. SPST contacts normally open. Excellent for starting dynamotors and heavy motors,  $3\frac{7}{8} \times 2\frac{3}{4} \times 2\frac{3}{8}$ ". Similar to G. E. Contactor No. CR-2800-384B2.  
99N4301 ..... **79c**

## S.P.D.T. RELAY



S.P.D.T. contacts of  $\frac{1}{8}$ " diameter silver rated at 110 volts 10 amps. Coil operates on 3 volts DC. Resistance of coil 3 ohms. Overall size:  $2\frac{1}{4} \times 2\frac{1}{8}$ " x 1". Two mounting holes on  $2\frac{1}{8}$ " centers.  
99N4305..... **69c**



## RECORD CHANGER MOTORS

Heavy duty Record Changer Motor. Exact replacement for Seeburg Model L record changer. Heavy duty shaded four-pole motor is vibration isolated from mounting bracket by three live rubber grommets. Motor turns at approximately 1700 rpm, heavy rubber tired idler wheel at 318 rpm. Bracket has flange holes on  $2" \times 5"$  ctrs. for mounting to your application. 12" insulated leads.  
99N7082—Shpg. wt. 5 lbs..... **2.25**

Light Duty Changer Motor. Exact replacement for thousands of standard record changers and phono players. Shaded two-pole fan cooled motor has extra large bearings for long, vibrationless life. Shaft turns at 2500 rpm, 2" rubber tired idler wheel at 350 rpm. Three  $\frac{3}{8}$ " holes in mounting plate for rubber grommet suspension of entire unit.  $4\frac{1}{2} \times 3\frac{1}{2} \times 2\frac{1}{2}$ ". 22" insulated leads.  
99N7083—Shpg. wt.  $3\frac{1}{2}$  lbs.... **1.69**

## ARGON BLUE GLOW LAMP



Blue glow  $2\frac{1}{2}$  watt lamp. Used in newest photographic contact printers, useful as nite-lite. Starting voltage AC 65, DC 90. For Edison type socket.  
99N12279..... **29c**

## SPECIAL FEATURES!



## 5BP1/5GP1 C-R TUBES

Brand new 5BP1/5GP1 cathode ray tubes perfect for oscilloscope use. Green fluorescence with medium persistence. Large five-inch screen, medium shell magнал 11 pin base. 6.3 volt heater, anode No. 2 voltage 2500 volts. Each tube is individually boxed.  
99N9559—Shpg. wt. 3 lbs..... **1.39**

## SENSITIVE RELAY



45-60 VDC sensitive relay, 10,000 ohm coil. Contacts: one set of DPST normally closed, and one set of SPST normally open, rated 15 amperes at 6 volts to 5 amperes at 110 volts. Dimensions:  $1\frac{5}{8} \times 2 \times 1\frac{1}{4}$ ".  
99N3981..... **1.29**

## THERMAL TIME DELAY RELAY



Leach type 1054T with 375 ohm 24 volt D.C. coil. Delay adjustable from 20 seconds to 1 minute.  $\frac{1}{4}$ " fine silver D.P.S.T. contacts normally open. Will handle 50 amps. at 12 volts DC. 25 amps. at 24 volts DC. 6 amps. at 110 volts AC. Metal base with 8 mounting holes.  $3\frac{3}{4}$ " x  $2\frac{3}{4}$ " x  $1\frac{3}{8}$ ".  
99N4030 ..... **1.19**

## 4 P.D.T. 24 VOLT RELAY



$\frac{1}{8}$ " pure silver contacts rated at 3 amps. 110 volts AC. 250 ohms DC coil for 24 volt operation. 6-32 threaded mounting holes on  $1\frac{1}{8}$ " mounting centers. Size:  $2 \times 1\frac{5}{8} \times 1\frac{3}{8}$ ".  
99N3996..... **49c**

## 1/25 H.P. MOTOR



Designed and sturdily constructed for long trouble free operation. Operates quietly and efficiently at 1750 rpm. For 110 volt 60 cycle AC operation only. Well suited for use as fan motor for up to 10-inch blades, mixers and rotating animated signs. Oilite self lubricating bearings.  $\frac{3}{8}$ " shaft 1" long with flat side for set screw connector. Four 8-32 mtg. studs 1" long, on 2" ctrs.  
99N7084.....Each **5.45**

## HI-FREQUENCY ANTENNA



Hi-Frequency Antenna. Designed for use with Signal Corp SCR-522 transmitter-receiver. Ideal for use with high frequency (100-156 MC) amateur equipment. Overall length is approximately 30 inches.  
99N9581—Shpg. wt. 4 lbs..... **39c**

## SPECIAL 3AG FUSES



Type 3AG fuses for use in test instruments, amplifiers, and auto clocks, panel lights.  
99N283—3 Amp.....5 for **9c**  
100 for.....1.50  
99N284—5 Amp.....5 for **9c**  
100 for.....1.50

## SPECIAL RELAY



45 V DC relay, 2000 ohm coil. Contacts: one set of SPDT rated 50 amps. at 6 volts to 20 amps, at 110 volts, and one set of SPST normally open contacts rated 5 amps at 6 volts to 2 amps, at 110 V. Excellent for tube circuits, photocell alarm systems, hosts of other applications.  $3\frac{1}{2} \times 2\frac{1}{4} \times 3\frac{3}{8}$ ". Dust cover, mounting screws, and wiring diagram.  
99N3983..... **89c**

## DOUBLE POLE RELAY



Double pole relay, one set of SPST contacts normally open, one set of contacts normally closed, contacts of  $\frac{1}{8}$ " fine silver, rated at 550 watts non-inductive load at 60 cycles. Coil operates on 14 to 32 V. DC resistance 27.5 ohms.  $2 \times 2\frac{1}{4} \times 1\frac{3}{8}$ ". Mtg. bracket.  
99N5941 ..... **39c**

## D.P.D.T., 24 VOLT RELAY



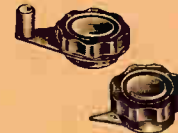
$\frac{1}{4}$ " pure silver contacts rated at 6 amps. 110 volts AC. Bakelite insulation. Coil resistance 230 ohms DC. 6-32 threaded mounting holes on  $1\frac{1}{8} \times \frac{1}{2}$ " centers.  $2 \times 1\frac{5}{8} \times 1\frac{1}{4}$ ".  
99N3990..... **49c**

## 4 P.D.T. RELAY



110 V AC operated relay. Pure silver contacts rated at 10 amps. Four pole double throw contacts one side normally closed.  $3 \times 3\frac{1}{2}$ " metal base with mtg. holes on  $2\frac{1}{2} \times 3"$  ctrs. Relay  $2\frac{1}{4} \times 1\frac{3}{4} \times 2"$ .  
99N4306..... **2.25**

## TUNING KNOBS



Tuning Knob with Crank.  $1\frac{5}{8}$ " diameter polished black bakelite knob with extension crank handle for very fine adjustments. For  $\frac{1}{8}$ " shafts, but supplied with bushing for  $\frac{3}{8}$ " shafts.  $2\frac{1}{2} \times 1" \times 1\frac{1}{8}"$  d.  
99N250—Shpg. wt.  $\frac{1}{2}$  lb..... **19c**  
Pointer Knob. Polished Black bakelite, White plastic pointer.  $2\frac{3}{8}"$  dia.  $\frac{3}{4}"$  d. Double set screws for  $\frac{1}{4}"$  shaft.  
99N251—Shpg. wt. 4 oz..... **9c**

## PILOT LIGHT ASSEMBLY



Three pilot lamps and sockets mounted in die-cast housing. Green, Red, White frosted glass lenses with chrome plated rims. Sockets spring loaded, insulated from casting. Black finish.  $3\frac{1}{8} \times 7\frac{3}{8} \times 1\frac{1}{2}"$  w x  $2\frac{1}{4}"$  d. 8-27 mtg. holes on  $2\frac{1}{4}"$  ctrs.  
99N6987—Shpg. wt. 1 lb..... **69c**

## MINIATURE SOCKET



Molded bakelite base socket for 7 pin miniatures. Fits 1R5, 1T5, 1S4, 1S5, etc. Metal mounting shell, 2-mtg. holes on  $\frac{7}{8}"$  ctrs.  
99N282—Each..... **7c**  
10 for..... **63c**



# HARD-TO-BEAT BARGAINS

## SPECIAL FEATURE!



**LOW-COST JACK BOX**  
Consists of one 3-circuit jack, one 150M potentiometer and 5 position rotary switch enclosed in aluminum case 4 1/2" long, 3" wide, 3" high. Complete with knobs.

99N3959—Shpg. wt. 2 lbs..... **25c**



### SPEAKER CABLE

10-foot RC 3-conductor cable for easy identification. Colored leads, No. 10 spade lugs and tie cord at each end. Heavy duty tinsel wire, live rubber insulation. For phone, speaker applications under rough conditions.

99N5138..... **22c**

### UNSHIELDED R. F. CHOKES

All-purpose chokes. Universal-wound, accurately rated. Thoroughly impregnated. Give trouble-free service.

98N10139—2.5 Mh..... **16c**

98N10135—60 Mh..... **26c**



### TOOL ROLL

1. Simulated leather. Strap has 15 slots for several pliers, socket wrenches, etc. Makes compact kit.

99N9521..... **15c**

### FIVE-IN-ONE TOOL SET

2. Cadmium plated steel shank, handle stores 4 socket tips 1/16", 3/8", 7/16", 1/2", one 1/4x3/64" screwdriver tip.

99N6985—Shpg. wt. 2 lbs..... **69c**



**PILOT LIGHT SOCKET**  
Two-contact bayonet-type socket. Requires 3/4" dia. hole for mounting flange. With retaining ring, 2 solder lugs.

99N247..... Each **15c**  
10 for..... **1.35**



**NEON GLOW LAMP**  
1/4 watt neon glow lamp. Two-contact bayonet-type base. Resistorless type for 105-125 V. AC-DC. AC starting voltage 65, DC starting voltage 90. For test instruments.

X188—Each..... **15c**

### RESISTORLESS NEON BULBS

For test instruments, noise silencers, and RF protection on receivers Type NE-2 with a wattage rating of 1/25 W. No base. Wire terminals.

X169—Each..... **5c**  
10 for..... **45c**



### CIRCUIT BREAKER

Completely housed in molded plastic flame-proof case with reset switch on front. Fast positive action. 3"x3 3/4"x1". For use on 115 volt AC-DC. Restore after short by putting toggle to "On."

99N4058—220 MA..... **1.39**  
99N4059—9 Amp..... **1.65**

## SPECIAL FEATURE!

### THROAT MICROPHONE



Carbon mike will work into any 200 ohm impedance input circuit. Has adjustable strap to fit any neck. In operation mike is strapped

around throat. Allows full freedom of both hands and head movement. Ideal for ultra-high frequency mobile work for amateurs. With strap, 10" cord, plug.

99N7060—Shpg. wt. 1 lb..... **19c**



### THREE-CONDUCTOR CABLE

3-circuit mike plug PL-68 connected to rubber-covered 3-conductor 4' cord. Terminates in two connecting lugs, tinned ground lead, and the cord fastened to eye-hole lug. Flexible and durable.

99N5145..... **19c**



### CERAMIC SOCKET

Heavy-duty, octal socket. 1 1/4" mounting centers. Silver-plated cylindrical pin contacts. Ceramic body in steel shell. 4 lugs.

98N13109—10 for..... **63c**..... Each **7c**



### 30 MH RF CHOKE

Wound on ceramic. Lug terminals. 2 mtg., holes in base. DC resist. 136 ohms. 125 ma. DC.

98N10134..... **29c**

### BREAK-IN TELEGRAPH KEY



Mounted on bakelite base 4 3/4"x3". Jumper strip, binding posts and circuit closing switch mounted on base. 1/16" solid silver keying contacts. Metal part cadmium-plated. Excellent for sounder and buzzer telegraph.

99N6543—Shpg. wt. 8 oz..... **39c**

### FUSE HOLDER KIT



One Littelfuse No. 1068 double fuse mtg., 3-5 amp 3AG fuses, 2 screws 3/16"x3/4", 2 No. 6 lock-washers, two 1/8"x1/8" brass rivets, 2 Littelfuse clips No. 1011, 2 3/16" steel nuts.

99N145—Each..... **10c**

### EXTRACTOR FUSE POSTS



Bakelite fuse holder for 3AG fuse. Panel mounting. 15/16" bushing, rubber washer, lock washer, nut. Extends 1 1/8" behind panel. Solder lugs.

99N238..... **14c**



### BEST VALUE CABLE KIT

Consists of: 35' 3-conductor cable. 2 lb. No. 72 Seine Twine, 1 roll 6" red acetate tape, 1 roll 6" white acetate tape, 3 cable clamps, 1 4-prong Jones Socket assembly, 2 4-prong Jones plug assemblies, 3 pull-chain assemblies.

99N6992..... **59c**

## SPECIAL FEATURE!

### SELENIUM RECTIFIER



No warm-up period. Saves space. Only 1 1/4"x1-1/16". Fits where tubes won't. Two rectifiers may be connected as a voltage doubler to supply 250 V. at 80 ma from 117 V. AC power supply.

98N10560..... **75c**

### CERAMIC OCTAL SOCKET



Flush mounting, phenolic compound socket in steel saddle. With 4 grounding lugs, tubular silver-plated contacts. 2 mounting holes.

99N6979 — Each.... **5c**  
10 for..... **43c**



### RADIO NOISE FILTER

Keeps hash out of power lines when connected at source of noise, removes hash from radio when connected to incoming line. In hermetically-sealed case 2x2x1 1/8". 2 mounting lugs on 2 3/8" centers. Case grounded, hot leg of 115 V AC line goes to terminal at one end, out of terminal at other end. Rated at 10 amps.

99N3239—Shpg. wt. 2 lbs..... **59c**



### TRANSMITTING KEY

General purpose transmitting key on a heavy die cast base, all mounted on a swinging bracket thigh clamp. 1/8" pure silver contacts. Key can be easily removed from clamp. Adjustable bearings. Supplied with 5-foot cable and PL-55 phone plug.

99N4034—Each..... **59c**



### HAND-HELD T17 MICROPHONE

High quality and light weight. 200 ohm single button carbon mike with built-in hiss filter, press-to-talk switch. Comes complete with 5-foot cord, PL-68 plug, and dust cover.

99N7062—Each..... **94c**



### PILOT LIGHT ASSEMBLY

Red jeweled pilot light assembly complete with removable blackout hood. Adaptable for panel mounting, requires 3/4" mounting hole. Two 8-32 threaded mounting holes on 1" centers on hood for mounting on top of unit or on bench top. With 28 V bulb.

99N6993—Wt. 8 oz..... **29c**



### LIVE RUBBER MOUNTS

Excellent live rubber mounts for floating variable gang condensers, sockets, and reactor changers to prevent microphonics. 5/16" diam. x 5/8".

98N14798—10 for..... **9c**  
100 for..... **60c**



### ANTENNA REEL

Sturdy, galvanized wire frame reel with handle and crank. Ideal for winding and storing antenna wire, cables, etc. Winding area 8 1/4"x3" inside.

99N6549..... **29c**



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# LAST MINUTE BARGAINS

## SPECIAL FEATURE



### 12 OR 24 VOLT DYNAMOTOR

Stable operation provides excellent power source for mobile transmitters, public address systems. Output 500 volts at 200 ma for continuous or 400 ma for intermittent operation. Type 135AX.  
99N9594—Shpg. wt. 53 lbs..... **7.95**



### KOILED CORD SET

Perfect for use with all home appliances. No tangling, kinking or fraying. Economical, practical.

98N13283 ..... **1.49**  
"Extendo" with male, female connectors.  
99N13284 ..... **1.49**



### ANTENNA LOOP

Provides excellent reception for small AC-DC sets. 2 windings.

99N3578—Ea. ... **29c**  
Lots of 10. **2.50**

### OIL-FILLED 7500 VOLT CONDENSER

.05 mfd with screw type and solder lug terminals on stand-off insulators. 2 1/4" dia. x 3 3/4".

99N3159—Each ..... **75c**

### ACORN TUBE SOCKET

Low loss socket with rugged spring contacts for 954 and 955 tubes. Constructed of ceramic material.

99N6980..... **15c**



### ROTARY SWITCH

3 position. 1st position, 1 circuit closed. Center position, both circuits open. 3rd position, 2 circuits closed.

99N4025..... **9c**



### S.P.S.T. ROTARY SWITCH

Excellent rotary switch for a multi-throw of applications. Mounted on a V plate. 1 1/2" high, 1 1/8" holes on 1 1/2" from centers. 3/8" shaft, 2 1/2" long.

99N4154..... **9c**



### MIDGET RELAY

12 V. 80 ma DC relay. SPST with contact normally open. Sturdy compact unit designed for use where space is a premium. 1 1/4 x 3/4 x 1".

99N4104—Wt. 8 oz... **39c**



## SPECIAL FEATURE

### 8" PM SPEAKER

High quality PM speaker at a money saving low price. Excellent replacement unit for hi fidelity radios and Public Address systems. 21 ounce magnet is capable of handling 10-12 watts output. Voice coil impedance 8 ohms.

99N7018—Shpg. wt. 4 lbs..... **3.95**



### SPECIAL 4 CIRCUIT SWITCH

4 positions, 4 contacts. 3/8" shaft 3/4" long. Two 6-32 mtg. holes on 1 1/8" centers. 3" x 2" x 1".  
99N4162..... **9c**



### PUSH-BUTTON SWITCHES

SPST momentary action switch. Ideal for amateurs and experimenters. 3/8 in. threaded panel bushing 1/8 in. long.  
99N4190..... **22c**



### IGNITION SWITCH

Four position, two terminal, positive action rotary switch with lever knob and bakelite indicator plate. An excellent switch for aircraft, marine, truck, tractor, automobile, and other motor ignition systems. 3 1/4" sq. x 1 1/4" deep.

99N4196..... **89c**



### LEVER ACTION SWITCH

"Positive action," four pole, two-pos. non-short- ing type. Less knob and plate. 2 holes for panel mounting threaded 8-32, on 1 3/8" centers. All contacts and wipers heavily plated.

99N4136..... **29c**



### 10 MH RF CHOKE

150 MA. Wound on wooden dowel. With mounting bracket. Tinned solder lug terminals. 1 1/4 x 1 1/8".

99N5108..... **19c**



### PLATE SUPPLY TRANSFORMER

Amateurs, experimenters, heavy-duty plate supply transformer at an unbelievably low price. Pri: 117 V. 60 cyc. AC. Sec: 800 VCT 200 ma. Color coded leads. 4 1/2 x 3 3/4 x 3 3/8".

99N5116..... **3.49**



### SPAGHETTI TUBING

Finest grade plastic extruded spaghetti tubing for insulating all exposed wiring 1/8" inside dia. In 90 ft. rolls only.

99N5144..... **98c**



### SPECIAL SPINTITE WRENCH

6-in. straight shaft. 1/8-in. socket.  
98N15052..... **9c**



## 24/28 V. DYNAMOTOR



Sturdily constructed and built to the exact specifications of the U.S. Signal Corps. Ideal for mobile, marine. Input 24/28 volts @ 1.2 amps. Output 220 volts @ 60 MA. Black enamel case, fully enclosed. Ball bearing armature. 4 1/4" long, with 2 1/4" dia. Two mtg. holes on 1 1/2" centers. R.P.M.—3500; continuous operation.

99N9510..... **3.95**



### 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.

X208 ..... **98c**  
X209—Same but foreign plug. }  
560 ohm for sets using .15 amp. tubes, 50 ma plate supply. Total cap. 200 ma }  
X210..... **98c**

### 25 WATT POWER RHEOSTAT

Popular brand power rheostat at a special bargain price. Ceramic and glazed porcelain construction throughout. 3/8" dia. bushing. 1/4" dia. x 1/2" shaft.



99N2122—20 ohm..... **49c**  
99N2121—5000 ohm..... **98c**

### VOLUME CONTROLS

Servicemen, experimenters stock up now on these popular size volume controls at these unbelievable low prices. Standard 1/4" dia. shafts, approx. 1 1/2" L.

99N2114—500 ohms..... **Each**  
99N2115—25,000 ohms..... **8c**  
99N2116—75,000 ohms..... **10 for**  
99N2117—100,000 ohms..... **72c**  
99N2118—200,000 ohms..... **8c**  
99N2119—Dual 600 ohms..... **72c**



### HAMMARLUND RF CHOKE

250 mh, 60 ma, DC res, 420 ohm in heavy plastic case. Type RFC 250. 1 1/4" dia. x 1 3/4".

98N8526..... **89c**



### IRC TYPE CD RESISTOR

10,000 ohm 8 watt wire wound resistor. 1/2" dia. x 3".

99N268..... **9c**



### KOOLOHM 120 WATT RESISTOR

Heavy duty 10,000 ohm 120 watt wire-wound resistor. Large surface area for heat dissipation. 1 1/4" dia. x 8 1/8". With rod and mount. hardware.

99N269..... **19c**

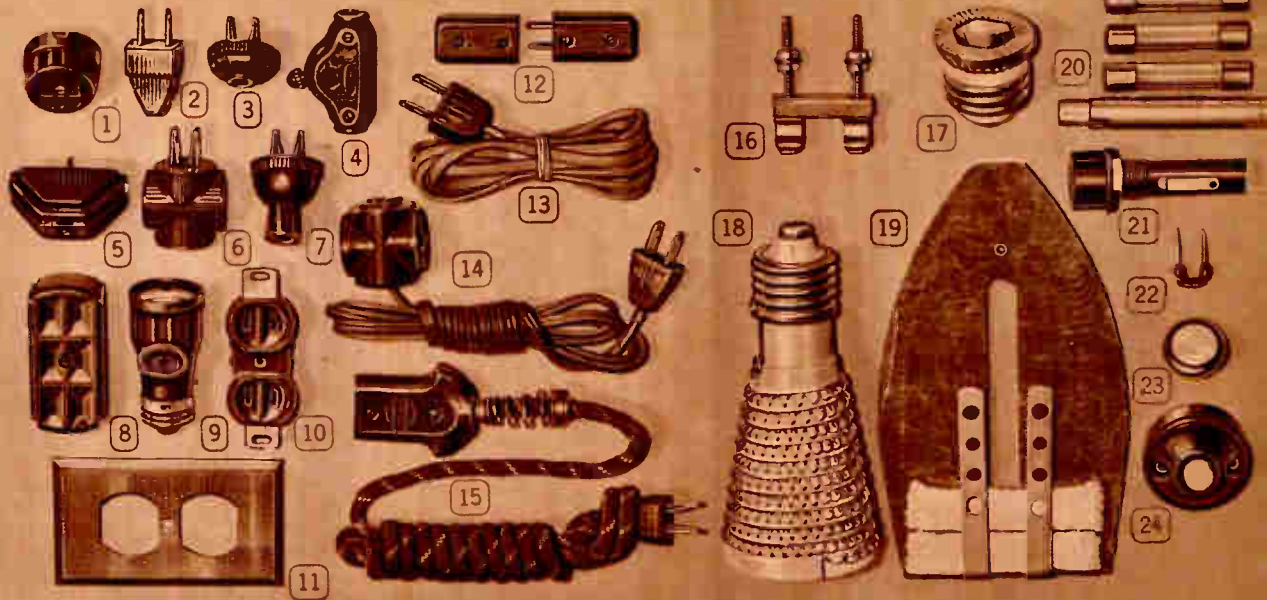


### TYPE 3AG FUSES

For radios and amplifiers.  
99N285—1/4 amp. } 5 for  
99N286—1/2 amp. } **8c**  
Either type, 100 for..... **89c**







### ELECTRICAL ACCESSORIES PRICED LOW TO SAVE YOU MOST

1. **SINGLE SURFACE OUTLET.** Brown bakelite. Wood mounting screw. 33N13271—Ea., 8c.....10 for 72c
2. **NITE-T-LITE.** Neon lamp glows softly thru clear plastic. 110 V AC-DC. 33N12330—Ea., 25c.....24 for 4.84
3. **BAKELITE PLUG.** Sturdy prongs. 33N13306—Ea., 6c.....10 for 54c
4. **CORD SWITCH.** For ceiling fixtures and home appliances. 33N13275—Ea., 24c.....10 for 2.16
5. **3-WAY SURFACE OUTLET.** Brown. Pin type terminals, wood screw. 33N13279—Ea., 15c.....10 for 1.35
6. **CUBE TAP.** Brown. 3 outlets. Shipping weight 2 ounces. 33N13282—Ea., 10c.....10 for 90c
7. **HANDLE PLUG.** Of soft rubber. Shipping weight 1 ounce. 33N13301—Ea., 8c.....10 for 72c
8. **3-WAY SURFACE OUTLET.** Brown plastic. With wood mounting screw. 33N13280—Ea., 15c.....10 for 1.35
9. **CURRENT TAP.** Bakelite. Straight socket with 2 plug outlets. 33N13278—Shpg. wt. 4 oz.....15c
10. **DUPLEX FLUSH RECEPTACLE.** 33N13328—Ea., 13c.....10 for 1.17

11. **WALL PLATES.** Dual outlet. Ripple design stainless steel. 33N13326—Ea., 10c.....10 for 90c
12. **MIDGET CORD CONNECTOR.** Flat two-piece. Underwriters listed. 33N13276—Ea., 22c.....10 for 1.98
13. **POWER CORD AND PLUG.** 6 ft. rubber cord, brown bakelite plug. 33N13285—Shpg. wt. 6 oz. Ea.....15c
14. **CUBE TAP EXTENSION.** Trio tap, 9 ft. rubber cord, AC plug. Brown. 33N13318—Brown. Ea., 37c 10 for 3.33
15. **HEATER CORD SET.** AC plug, 7 ft. heater cord and screwless plug. 33N13317—Shpg. wt. 7 oz.....57c
16. **FUSE MOUNTS.** Bakelite base. 33N12382—Sub-panel, instr.....12c  
33N12327—Sub-panel, 3AG.....12c  
33N12383—Panel, instrument.....9c  
33N12324—Panel, 3AG.....15c
17. **PLUG FUSES.** U. L. 5 per box. 33N13200—6 amp. 33N13203—20 amp.  
33N13201—10 amp. 33N13204—30 amp.  
33N13202—15 amp. Box of 5.....24c
18. **CONE ELEMENTS.** 110 V heaters. 33N13304—600 W. Ea., 45c. 5 for 2.03  
33N13305—1000 W. Ea., 69c. 5 for 3.11
19. **FITSALL IRON ELEMENTS.** 110 V. 33N13270—Ea., 45c.....10 for 4.15

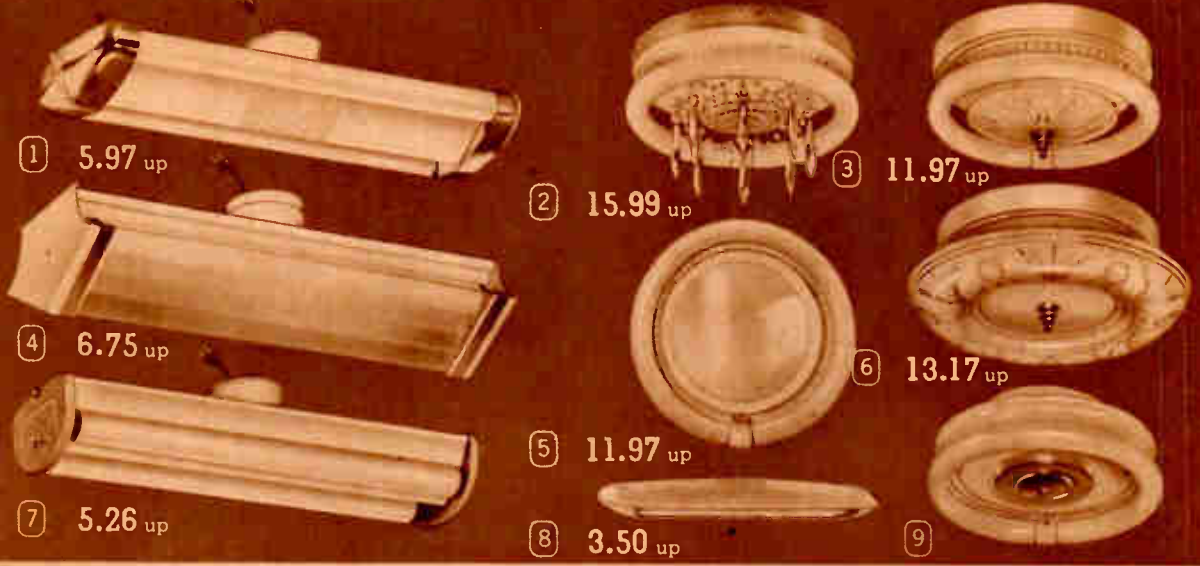
20. **LITTLEFUSES.** Type 3AG. Rated, at 250 V. 33N12378—1 amp.....4c  
33N12379—1½ amp.....4c  
33N12380—2 amp.....4c  
33N12381—3 amp.....4c  
Above, 100 for.....3.43
  - 33N12396—¼ amp... 9c  
33N12397—¼ amp... 9c  
33N12398—½ amp... 9c  
33N12399—¾ amp... 9c  
Above, 100 for.....7.35
- LITTLEFUSE AUTO FUSES.** Type SFE 32 V. Cat. No. Amp. Size Each Per 100  
33N12368 4 ¼ x ¾ 3c 2.45  
33N12369 9 ¼ x 7/8 2½c 1.96  
33N12370 14 ¼ x 1 ½ 2½c 1.96  
33N12371 20 ¼ x 1 ¼ 2c 1.71
- RADIO AND AUTO FUSES.** Type 3AG. 250 V. 33N13189—¼" x 1¼". Specify amperage. 1, 2, 3 amp.....5 for 18c.....100 for 3.25  
5, 10, 15, 20, 25, 30 amp. 5 for 12c.....100 for 2.10
- 3AG FUSE RETAINER.** Two piece metal. 2½" L. 33N12372—Each 8c.....10 for 72c
- FOR PHILCO MOTOROLA.** 2 pc. 2½" x ½" D. 33N8349—Each 17c.....12 for 1.84
21. **EXTRACTOR FUSE POST.** For 8AG 1" inst. fuse. 33N12328.....24c  
As above, but for 3AG 1¼" long fuses. 33N12326.....24c
  22. **INSULATED STAPLES.** No. 5. ¼" x 5/8". 17N15950—Pkg. of 100 14c.....10 Pkgs. for 1.26
  23. **PEARL PUSH BUTTON.** 5/8" dia. clip mount. 33N13313—Each, 24c.....10 for 2.16
  24. **MIDGET PUSH BUTTON.** Brown. 1½" dia. 33N13311—Each, 14c.....10 for 1.26

### FLUORESCENT ACCESSORIES—STARTERS, SWITCHES, BALLASTS

25. **NO BLINK INSTANT STARTERS.** U. L. approved. Eliminates blinking. Starter ceases to function and is not affected by deactivated lamp. When lamp is replaced, starter again functions normally. Starts within 1 second. Cat. No. Type Lamp Ea. 10 for  
33N13825—FS2NA 15-20 W. 36c 3.24  
33N13828—FS4NA 30-40 W. 36c 3.24  
33N13828—FS8NA 85-100 W. 64c 5.76
  26. **STANDARD FLUORESCENT STARTER.** New, fast reliable starter switch. Underwriters' approved. Starts in one second or less. Lamps light in a flash. Cat. No. Type Lamp Ea. 10 for  
33N13802—FS-5 4, 6, 8 W. 30c 2.70  
33N13810—FS-2 15, 20 W. 20c 1.80  
33N13811—FS-4 30, 40 W. 20c 1.80  
33N13813—FS-6 85, 100 W. 49c 4.41  
33N13827—FS-12 32 W. Circ. 24c 2.16
  27. **FLUORESCENT SOCKETS.** For T8, T12 lamps. Heatproof plastic. 33N13803—\*Black. Ea., 20c.....10 for 1.80  
33N13804—\*White. Ea., 21c.....10 for 1.89  
33N13805—Black. Ea., 12c.....10 for 1.08  
33N13806—White. Ea., 13c.....10 for 1.17  
33N13807—Starter. Ea., 12c.....10 for 1.08  
33N13801—\*White, for T17. Pr.....93c  
33N13808—Black, for T5. Pr.....58c  
\*Comb. starter socket and lampholder.
  28. **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 4½ x 2 x 1¾"—1 lb..... 54c Each, lots/10... 49c  
33N25617—20W 4½ x 2 x 1¾"—1 lb..... 54c Each, lots/10... 49c  
33N25618—30W 8½ x 2½ x 1¾"—3 lbs..... 2.10 Each, lots/10... 1.89  
33N25619—40W 8½ x 2½ x 1¾"—3 lbs..... 2.10 Each, lots/10... 1.89  
33N25620—(2) 20W 5½ x 2 x 1¾"—2 lbs..... 1.06 Each, lots/10... 96c  
33N25621—32W 8½ x 2½ x 1¾"—3 lbs..... 2.25 Each, lots/10... 2.03
- High Power Factor**  
33N25614—30W 13¼ x 2½ x 1¾"—4 lbs..... 4.20 Each, lots/10... 3.78  
33N25615—40W 13¼ x 2½ x 1¾"—4½ lbs..... 4.20 Each, lots/10... 3.78  
33N25605—(2) 40W 17½ x 2½ x 1¾"—5 lbs..... 4.33 Each, lots/10... 3.90







## FLUORESCENT FIXTURES illuminate and decorate your home

ALL ADAPTOR TYPES SUPPLIED WITH CORD, PLUG AND 4-INCH CUPS

### Drake Fluorescent Fixtures

- Bring color into your home. Baked-on white enamel reflector, choice of trim. Uses 2-20 watt lamps, 26 x 8<sup>3</sup>/<sub>4</sub> x 2<sup>3</sup>/<sub>4</sub>".
- | Adaptor type         | Ea.  | Lots/3 | Each |
|----------------------|------|--------|------|
| 33N25594—Chrome Trim | 5.97 |        | 6.50 |
| 33N25596—Chinese Red | 6.48 |        | 7.06 |
| 33N25598—Blue        | 6.48 |        | 7.06 |
- Flush Type—U/L Approved
- |                      |      |      |
|----------------------|------|------|
| 33N25595—Chrome Trim | 6.57 | 7.15 |
| 33N25597—Chinese Red | 7.08 | 7.71 |
| 33N25599—Blue        | 7.08 | 7.71 |

### Ward Kitchen Unit

- Special finish distributes light scientifically through glass shields for maximum illumination. Adaptor type mounting instantly installs in any incandescent type fixture. Uses 2-20 watt lamps. With plug-on short cord and ring, less lamps. 25" long. 110-125 V. 60 cycle AC.
- |                                 |      |
|---------------------------------|------|
| 33N25555—Shpg. wt. 12 lbs. Each | 7.25 |
| Each, in lots of 3              | 6.75 |

### Fluorescent Kitchen Unit

- Maximum light without shadows or glare. End pieces completely cover body and sockets for protection, yet permit removal of lamps without disassembling unit. White baked-on enamel. Uses 2-T12 20 watt lamps. For 110-120 volt 60 cycle AC. 24<sup>7</sup>/<sub>8</sub>" x 5<sup>3</sup>/<sub>4</sub>". Less lamps.
- |                                |      |
|--------------------------------|------|
| 33N25551—Shpg. wt. 7 lbs. Each | 5.70 |
| Each, in lots of 3             | 5.20 |

### House-O-Lite Venus Circliner

- Features new fluorescent circline light in setting of delicate beauty. Sparkling pendants of imported crystal set-off the baked-on White enamel background trimmed with gold finish gallery. Available in flush type or adaptor type mountings. With lamp. 110-125 V. 60 cycle AC. 12" x 6<sup>1</sup>/<sub>2</sub>". Shpg. wt. 8 lbs.
- | Fed. Excise Tax Inc   | Ea.   | Lots/3 | Each  |
|-----------------------|-------|--------|-------|
| 33N25584—Flush Type   | 15.99 |        | 17.41 |
| 33N25585—Adaptor Type | 15.99 |        | 17.41 |

### Pin-Up Mirror Light

- Novel effect with excellent illumination—for homes, hotels or institutions. Finest 8-in. plate glass mirror circled with fluorescent light. With 12-inch diameter 32 watt glareless circline, 6 ft. cord and plug. Buffers on back allow air circulation between wall and fixture. 110 V. 60 cyc. AC.
- |                               |       |
|-------------------------------|-------|
| 33N25558—F.E.T. Inc. Each     | 13.03 |
| Shpg. wt. 9 lbs. Each, lots/3 | 11.97 |

### Gorlume Versillite Lamp

- Hangs vertical or horizontal—provides light where and when it's wanted. Two sets of special brackets for easy attachment. Lamp enclosed in streamlined plastic case 14<sup>1</sup>/<sub>2</sub>" long. Handy starter switch, cord and plug-in ballast. Uses 8 watt lamp. Less lamp. Shpg. wt. 4 lbs.
- |                       |      |
|-----------------------|------|
| 33N25562—Walnut. Each | 3.72 |
| Each, in lots of 3    | 3.50 |

### Deluxe Desk Lamp

- Lights entire desk area. Shade and base of one-piece pressed steel, baked wrinkle-taupe finish. Uses 15 W. lamp. 13<sup>3</sup>/<sub>4</sub>" H., 19<sup>1</sup>/<sub>4</sub>" shade. Less lamp.
- |                          |      |
|--------------------------|------|
| 33N25550—Wt. 8 lbs. Each | 5.46 |
| Each, lots of 3          | 5.19 |

### Executive Desk Lamp

- Blends with any decorative scheme—heavy cast base and column, Bank Bronze finish. Base has large pen and pencil well. Uses 15 W. lamp. 110 V. 60 cyc. AC.
- |                           |      |
|---------------------------|------|
| 33N25563—Wt. 11 lbs. Each | 9.54 |
| Each, lots of 3           | 9.06 |

### House-O-Lite Neptune 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 flush or adaptor type mountings. With lamp. 110 volts 60 cycles AC. White baked-on enamel. 12" x 3<sup>3</sup>/<sub>4</sub>". Wt. 7 lbs.
- | Fed. Excise Tax Inc.  | Ea.   | Lots/3 | Each  |
|-----------------------|-------|--------|-------|
| 33N25580—Flush Type   | 11.97 |        | 13.03 |
| 33N25581—Adaptor Type | 11.97 |        | 13.03 |

### House-O-Lite Saturn Circliner

- New, unusual lighting unit! Shielded fluorescent 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. 14<sup>1</sup>/<sub>2</sub>" x 5". Wt. 8 lbs.
- | Fed. Excise Tax Inc.  | Ea.   | Lots/3 | Each  |
|-----------------------|-------|--------|-------|
| 33N25582—Flush Type   | 13.17 |        | 14.34 |
| 33N25583—Adaptor Type | 13.17 |        | 14.34 |

### Circular Fluorescent Light

- Artistically designed fluorescent unit of heavy 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 AC. 12" x 3<sup>3</sup>/<sub>4</sub>". Shpg. wt. 7 lbs.
- | Fed. Excise Tax Inc.  | Ea.  | Lots/3 | Each  |
|-----------------------|------|--------|-------|
| 33N25556—Flush Type   | 9.65 |        | 10.25 |
| 33N25586—Adaptor Type | 9.65 |        | 10.25 |



- |    |         |
|----|---------|
| 10 | 5.19 up |
| 11 | 9.06 up |

### Mazda Fluorescent Lamps

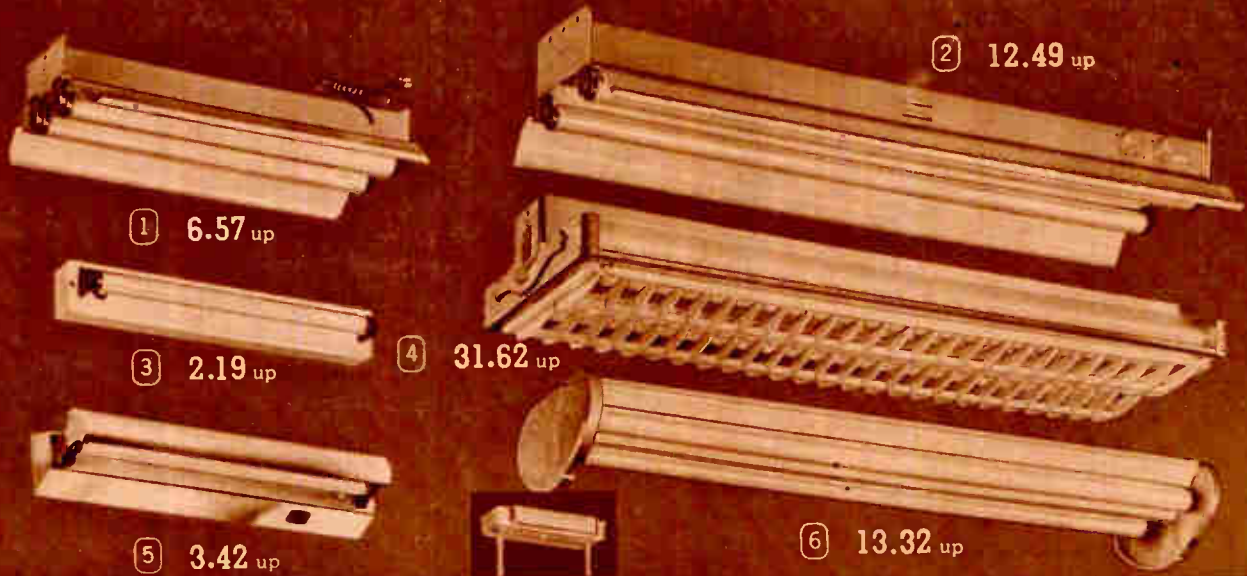
When purchasing lamps with any fluorescent fixture listed on these pages use 1st "Lots of" price instead of single price.

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 (T10) requires special socket. Inside diameter is 9<sup>1</sup>/<sub>2</sub> x 1<sup>1</sup>/<sub>8</sub>".

Approximate shipping weights: 6 and 8-watt lamps—1<sup>1</sup>/<sub>2</sub> lbs.; 14, 15, 20-watt lamps—2 lbs.; 30 and 40-watt lamps—3<sup>1</sup>/<sub>2</sub> lbs.; 100-watt lamps—8 lbs. See list on opposite page. Prices include Federal Excise Tax.





② 12.49 up

① 6.57 up

③ 2.19 up

④ 31.62 up

⑤ 3.42 up

⑥ 13.32 up

## FLUORESCENT FIXTURES designed for stores, offices, factories

### INDUSTRIAL UNITS FOR 105-125 VOLT 50-60 CYCLE AC OPERATION

#### House-O-Lite Industrial Plug-in Fixture

1. Constructed for convenience—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 watt lamps. Gray steel housing, with high gloss Sno-white reflector. Complete with 6 ft. cord and plug. Overall size: 4½" x 24" x 9½".

33N25567—Each, in lots of 3.....6.57  
Shpg. wt. 8 lbs. Each, singly.....7.15

#### All-Purpose Strip Light—U. L. Approved

3. Ideal lighting units for stores, store windows, show cases, or homes and offices. Multiple knockouts for single unit or end-to-end mounting. Channel and cover White baked enamel. 33N25575 is high power factor unit. Supplied less lamps.

Cat. No.	Lamps	Wt.	Size	Lots/3 ea.	Each
33N25572	1-15 W	3 lbs.	19 x 2½ x 17/8"	2.18	2.38
33N25573	1-20 W	3½ lbs.	25 x 2½ x 17/8"	2.25	2.45
33N25574	1-40 W	9 lbs.	49¼ x 2½ x 17/8"	5.01	5.46
33N25575	2-40 W	22½ lbs.	49 x 6 x 2½"	10.35	11.27

#### Chrome Bracket Fixture—U. L. Approved

5. For home or commercial use! Handsome, practical design is adaptable anywhere. Uses 15 watt lamp. Rustproof chrome finish on copper plated steel. Size: 19½ x 3¼ x 3½" high, less reflector; 4½" high with reflector. Supplied less lamps.

Cat. No.	Wt.	Lots/3 ea.	Each
33N25576—Bracket alone.	3 lbs.	3.42	3.72
33N25577—With convenience outlet.	3 lbs.	3.60	3.92
33N25578—With reflector.	3½ lbs.	4.50	4.90
33N25579—With reflector and outlet.	3½ lbs.	4.68	5.10

#### Flexo Adjustable Fluorescent Lamps in Two Styles

Versatile lamps adjustable to any angle or position by the mere touch of the hand. Double arm action permits horizontal swing of 330 and extension of 32". Uses two T8, 15 watt lamps. For 110-125 volt 60 cycle AC only. Statuary Bronze baked-on enamel finish. Industrial or desk models.

7. GENERAL MODEL for factory benches, tables, etc. 2-bolt clamp-on base. 33N25560—Less lamps. Wt. 15 lbs. 16.75

8. PORTABLE DESK MODEL with weighted base, pen and pencil grooves. 33N25561—Less lamps. Wt. 23 lbs. 22.50

Dealers Write for Quantity Prices



⑦ 16.75

⑧ 22.50

#### Deluxe Heavy Duty—U. L. Approved

2. 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 "glazename." 2-40 watt lamps. 48 x 13½ x 5¾". Less lamps.

33N25565—Wt. 27 lbs. Each, lots/3.....12.49. Each..13.27  
33N25566—For 3-40 W. lamps, lots/3.....17.67. Each..19.24  
33N25690—U/L Approved cord and Plug Set, 6 ft. long.....54c  
33N25691—Levolier Switch with Pull Chain.....75c  
33N25692—8 ft. Galv. Tenso Chains with S Hooks, Pr.....64c

#### Deluxe Louvered Luminaire—U. L. Approved

4. Handsome streamlined units for stores, offices and other areas where high level lighting without glare is desired. Ribbed Sky-Tex glass side panels throw light both up and down. For flush mounting or may be suspended for easy access to lamps and interior. Uses 4-40 W. Lamps. White baked enamel; gold trimmed ends. H.P.F. ballasts. 49 x 13 x 5½". Less lamps.

33N25570—Wt. 35 lbs. Each, lots/3, 31.62.....Each..34.43  
STEM AND CANOPY SET for use with above. Shpg. wt. 4 lbs.  
33N25571—Each, lots/3, 1.77.....Each..1.93

#### All-Steel Luminaire—U. L. Approved

8. Engineered for uniform rich lighting, yet distinctively designed for decorative effect. All-steel baked enamel fixture is constructed for flush mounting, but can be suspended with addition of stem and canopy set listed under 4. above. Uses two 40 watt lamps. Attractive end plates finished in durable white baked-on enamel. 49½" x 10" x 6". Fixture supplied less lamps.

33N25568—Wt. 21 lbs. Each, lots/3, 13.32.....Each..14.50  
Same as above, but for four 40 watt lamps. Less lamps.  
33N25569—Wt. 35 lbs. Each, lots/3, 22.35.....Each..24.33



#### Mazda Fluorescent Lamps

White Cat. No.	Daylight Cat. No.	G.E. No.	Size L. D.	Watts	Each	Lots of	Each	Lots of	Each
33N25533	33N25534	T5	9 x 3/8"	6	75c	7	68c	24	64c
33N25527	33N25528	T5	12 x 3/8"	8	85c	7	77c	24	73c
33N25496	33N25497	T8	18 x 1"	15	62c	8	56c	24	53c
33N25525	33N25526	T12	18 x 1 1/2"	15	75c	7	68c	24	64c
33N25529	33N25530	T12	15 x 1 1/2"	14	75c	7	68c	24	64c
33N25535	33N25536	T12	24 x 1 1/2"	20	75c	7	68c	24	64c
33N25537	33N25538	T8	36 x 1"	30	75c	7	68c	24	64c
33N25539	33N25540	T12	48 x 1 1/2"	40	1.00	5	90c	24	85c
33N25531	33N25532	T17	60 x 2 1/2"	*85	2.30	3	2.08	12	1.96
33N25541		T10	12 1/2" Od.	32	1.75	3	1.58	12	1.49

\*85 W. lamp replaces old 100 W. lamp.





## HOUSEHOLD AIDS COST LITTLE, SAVE MUCH TIME AND EFFORT

**1. DUO-CHIME UNIT.** Rings differently for front and back doors. Operates on low voltage (10-18 V) transformer or 6 volt storage batteries. All metal construction, finished in Cream and Gold. 6½ x 6½". Shipping weight 2 pounds.

33N25410—List Price 4.95, Net..... 3.30  
33N1500—10 volt transformer..... 1.16

**4. COFFEE VACULATOR.** Pyrex brand heat resistant glass, black plastic parts. Exclusive clothless AFC (automatic flavor control) filter. 4 cup capacity.

33N25424—Ea... 2.95 Ea. Lots of 3... 2.75  
Pyrex Coffee Vaculator, 8 cup capacity.  
33N25425—Ea... 3.70 Ea. Lots of 3... 3.45  
Pyrex Coffee Vaculator, 12 cup capacity.  
33N25426—Ea... 4.45 Ea. Lots of 3... 4.15  
Two heat electric stove for above.  
33N25427—Ea... 4.45 Ea. Lots of 3... 4.15

**2. PUR-AR-LITE AIR PURIFIER.** New low priced aluminum germicidal lamp for kitchen or bathroom. Ozone producing ultra-violet lamp destroys germs, banishes unpleasant odors. Wall type for 110 V AC only. List Price 6.95. Shpg. wt. 2 lbs.

33N25419—Each, Lots of 3..... 4.63  
Each, Singly ..... 5.25

**5. ELECTRIC MIXER.** Ideal for whipping pancake and waffle batters, cream, eggs, or other light batters—even mixes drinks. Full one quart capacity glass container with extra cover for storage. Self-lubricating, sturdily constructed electric motor with push-button control. Two interchangeable mixing blades. For 110 volt AC-DC operation. Shpg. wt. 7 lbs. List Price 7.95.

33N25414—Each, Lots of 3..... 5.45  
Each, Singly ..... 5.95

**3. CENTURY GLIDE-O-MATIC IRON.** Irons faster and easier. Temperature control selector, side-mounted cord, tilt-up heel rest. Cool plastic handle. 1000 watt. Aluminum sole plate for 110 volt AC. List price 9.95. U. L. approved. Shpg. weight 6 lbs.

33N25418—Each, Lots of 3..... 6.95  
Each, Singly ..... 7.45

**6. RAINBOW 2-SLICE TOASTER.** Produces evenly browned toast, quickly and easily. Slices of bread are automatically turned without handling when doors are opened. Pure Mica elements are wound with genuine Nichrome wire. Projecting base prevents tipping or shifting while in use. Chrome plated with black enamel base. 110 AC-DC. Shpg. wt. 3 lbs. List Price 5.75.

33N25420—Each, Lots of 3..... 3.95  
Each, Singly ..... 4.30

## AT RIGHT—ELECTRIC CLOCKS WITH SELF-STARTING MOTORS

**7. TORK ELECTRIC WALL CLOCK.** For stores, banks, schools. Large 12" clock face easily seen from a distance. Automatic setting feature operates by pulling cord. Red second hand, Black numerals. Aluminum case, Maroon finish. 16" diameter, 2¾" deep. Shpg. wt. 6 lbs.

33N25465—List Price 16.50, Net..... 12.37

**10. SELECTRON RADIO ALARM CLOCK.** Wake up to musical Plug radio into clock, set switch, "Selectron" automatically turns radio on at any 15 minute point. Can be used with home appliances also. Celanese plastic case. Cord set. 110 V AC.

33N25470—Maroon. 33N25471—Ivory.  
Shipping weight 4 lbs..... 4.85

**13. PENWOOD CLOCK—IMPERIAL TYPE.** Ultra-modern Numechron electric time-keeping. Self-starting synchronous 110-volt AC motor. Rosewood plastic case with Pearl trim, or Ivory with Red trim. 10¼ x 4½ x 4½". Shpg. wt. 5 lbs.

33N25483—Rosewood. 33N25484—Ivory.  
List Price 12.95, Net..... 8.60

**8. PENWOOD CLOCK—STARLET TYPE.** Streamlined plastic. Styled for desk, table or mantel. Numechron electric time keeping needs no winding or regulating. Self-starting, synchronous 110 volt AC motor. Dimensions: 5½ x 3¾ x 3¾".

33N25453—Walnut. L.P. 6.95, Net... 5.21  
33N25459—Black. L.P. 5.95, Net..... 4.45

**11. PENWOOD CLOCK—VOGUE TYPE.** Attractive electric kitchen or wall clock with modern Numechron time-keeping Haydon 110 volt self-starting synchronous AC motor. 5½ x 5¼ x 3¼". Plastic case. List Price 6.95. Shpg. wt. 3 lbs.

33N25452—Ivory. 33N25457—Red.  
33N25458—Green. Any color, net... 5.21

**14. HILTON SCHOONER SHIP CLOCK.** Trim, decorative, equally handsome on desk or mantel. Correct time always with dependable synchronous movement. Hand-rubbed Walnut with Chrome trim. Dimensions: 21 x 19¼ inches. List Price 18.50.

33N25462—Each, Lots of 3..... 11.65  
Each, Singly ..... 12.35

**9. PENWOOD CLOCK—TOPPER TYPE.** Desk or table model in unbreakable plastic case. Numechron electric time keeping gives hour, minute and second at a glance. Synchronous, self-starting 110 volt AC motor. Dimensions: 5¾ x 3¾ x 3¾".

33N25455—Walnut. 33N25458—Ivory.  
List Price 7.95, Net..... 5.96

**12. PENWOOD CLOCK—COMMANDER.** Newly designed desk model in modern plastic case. Numechron electric time-keeping tells time at a glance. Haydon synchronous, self-starting 110 volt AC motor. 7¾ x 4 x 4". Shpg. wt. 3 lbs.

33N25450—Walnut. 33N25451—Ivory.  
List Price 8.95, Net..... 6.71

**15. HILTON MERIDIAN CLOCK.** Unusually handsome desk model in hand-rubbed Walnut hardwood case. Accuracy assured by dependable synchronous movement. Amber plastic and Gold trim. 16½ x 15¾". Shipping weight 4 lbs. List Price 12.95.

33N25461—Each, in Lots of 3..... 8.15  
Each, Singly ..... 8.75

## AT RIGHT—MODERN, STREAMLINED ELECTRICAL APPLIANCES

**18. KORD COMBINATION FAN-HEATER.** Fan blown heat in winter, fan for summer. Switch offers choice of fan only or fan and heater. 1320 watts, 115 V AC. Tan finish, 11½ x 9½". List Price 14.95.

33N25421—Each, in Lots of 3..... 9.95  
Shpg. wt. 8 lbs., Each, Singly... 11.20  
Fan Blown Heater only. List Price 10.25  
33N25422—Each, Singly..... 8.20

**19. PRINCESS ELECTRIC STOVE.** Cooks quickly and cleanly. Three cooking heats. Gray finish, one piece steel body with chrome top for 110 V AC-DC. Shipping weight 8 lbs. List Price 8.95.

33N25400—Each, Singly ..... 6.82  
Each, Lots of 6, 6.11—Ea., lots of 12. 5.88  
33N13302—2-Way Cord for above.... 52c

**17. KORD ELECTRIC STOVE.** For quicker, cooler cooking. 4 different heats, maximum power drain 1650 watts. "Drip Tray" catches grease, pulls out for easy cleaning. White baked-on-enamel, nickel trim. For 115 V AC-DC. 19 x 10 x 5½". List Price 11.85. Shipping weight 13 pounds.

33N25408—Each, Lots of 3..... 7.94  
Each, Singly ..... 8.89

**20. GRILL AND WAFFLE BAKER.** Toasts sandwiches, grills meats, makes waffles. Top and bottom grill plates turn over easily to form waffle grids for two 4½" sq. waffles. Chrome finish. Dial indicator. 115 V AC-DC. List Price 14.10.

33N25423—Each, Lots of 3..... 9.85  
Each, Singly ..... 10.55

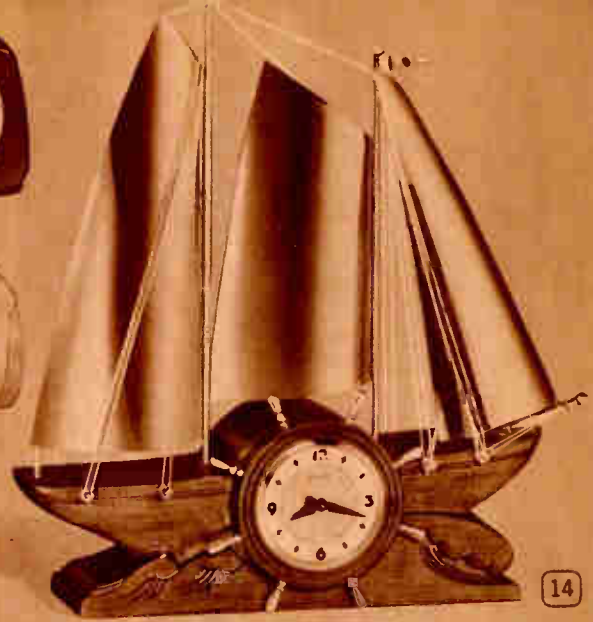
**18. SANDWICH TOASTER AND GRILL.** Prepares anything from a snack to a luncheon. Toasts, grills meat or makes pancakes economically. Expansion hinges assure uniform heat over entire cooking surface. Chrome plated for 115 volt AC-DC. Shipping wt. 7 lbs. List Price 11.00.

33N25415—Each, Lots of 3..... 7.85  
Each, Singly ..... 8.25

**21. RAINBOW WAFFLE IRON.** Dial indicator in top shows when proper temperature is reached to pour batter. Expanding hinges for even baking. Waffles will not stick to grids. Chrome plate. For 110 Volt AC-DC. Shpg. wt. 5 lbs. List Price 10.45.

33N25428—Each, Lots of 3..... 7.25  
Each, Singly ..... 7.85









## WIRE, DISC RECORDERS make good recordings at low cost

### EASY-TO-OPERATE MODELS RECORD VOICE OR MUSIC, HAVE PHONO PLAYBACK

#### Dual-Speed Portable Disc Recorder

1. With this new Portable disc recorder anyone can make professional quality recordings of voice and music on acetate blanks—speedily and easily. Records up to 10" discs at 33 $\frac{1}{3}$  or 78 rpm, plays back all records up to 12" at either speed. A convenient phono jack is provided so that recordings may be made by connection to radio or through the microphone.

Simple to operate—only two switches! Record-Reproduce switch actuates three separate tone compensators and volume level change circuits. Volume control is also On-Off switch. Sufficient gain is provided within the amplifier so recordings may be made at a distance from the mike for group and special sound effects.

Convenient dual recording level indicators of the neon glow type are built-in—automatically show when proper recording level is being maintained.

High output crystal microphone—for hand or desk. 7 feet of cable and connector.

Portable case. Finest fir plywood covered with two-tone leatherette.

Tubes used: 12SJ7, 12SQ7, 50L6, 35Z5 rectifier and two NE51 Neon Glow tubes.

Size: 15 $\frac{7}{8}$ " x 17 $\frac{5}{8}$ " x 9 $\frac{3}{4}$ ". 115 volt, 60 cycle AC. With tubes, Microphone, Micro-Matched cutting and playback needles, Dual Speed Mechanism, 6 ft. line cord and plug.

35N22575—Shpg. wt. 36 lbs..... **78.92**

#### Radio-Disc Recorder-Phonograph

2. Now—a radio set and a dual-speed disc recorder that operates from microphone or built-in radio and plays back all recordings up to 12" diameter at 33 $\frac{1}{3}$  or 78 rpm—all in one handsome portable case. Excellent for teaching languages, elocution, music, speech, voice, drama. Use in business for auditions, training of salesmen, personnel messages. Record birthdays, anniversaries, wedding ceremonies. So simple to operate that anyone can make professional-like recordings.

Superheterodyne radio circuit is designed especially with beam power output for recording, listening, and use of the amplifier section as a Public Address System. Output jack for adding extra speakers when needed. Tone control for blending high and low tones. Inverse feed-back circuit reduces hum and distortion. Built-in high fluxdensity speaker has Alnico V magnet. Built-in loop antenna. Twin neon recording level indicators.

Tubes used (furnished): 6SA7, 6SK7, 6SJ7, 6SQ7, 6V6 beam power output and 6X5 rectifier. For 115 volt, 60 cycle AC.

Attractive portable carrying case—fir plywood, covered with rich Brown Mahogany Du Pont fabricord. With tubes, line cord, microphone, one cutting and one playback needle. 17"x18"x9 $\frac{1}{2}$ ".

35N22576—Shpg. wt. 35 lbs..... **99.95**

#### CONCORD Portable Wire Recorder

3. Records for one hour—radio programs, phonograph records, from microphone! Make recordings for future reference, or erase and re-record as many times as you wish. Plays all records up to 12".

Console features in a portable case—automatic shut-off (after wire rewinds) . . . safety lock . . . sensitive microphone . . . 5 tube amplifier (including rectifier). Carrying case covered in Tan leatherette. With microphone and two 15 minute spools of wire. For 115 volts, 60 cycle AC. Size: 17"x14"x9".

35N22526—Shpg. wt. 36 lbs.... **109.50**

#### Wire Recorder Foundation Unit

4. Basic unit for building a combination wire recorder—phonograph. Uses standard steel wire (not supplied). With circuit diagrams and instruction for building complete unit. Min. mtg. area 9"x13", 3" above and 5" below mtg. board.

35N22522—Shpg. wt. 16 lbs..... **49.98**

35N10372—Erase Bias Osc. Coil..... **2.79**

#### Recording Wire

For all wire recorders on both pages.

35N16311—15 min. spool wire..... **1.50**

35N16312—30 min. spool wire..... **2.25**

35N16313—60 min. spool wire..... **3.75**

Plastic Leader for units on this page.

35N16318 .....Pair, **9c**



## Astra-Sonic Wire Recorder-Phono-Radio

Only **149.50** with position calculator meter, portable case

Records family gatherings, historical events, business conferences, interviews, drama and music lessons. Records radio programs from built-in radio and disc recordings from the self-contained phonograph.

Wire recorder—records continuously for one hour. Erases as it records. Shuts off automatically at end of spool when recording or rewinding. Equipped with neon volume indicator, variable tone control. Visual indicator provides means for calculating feet of wire recorded and time in seconds. Fast rewind motor.

Radio—latest type superheterodyne covers the entire broadcast band.

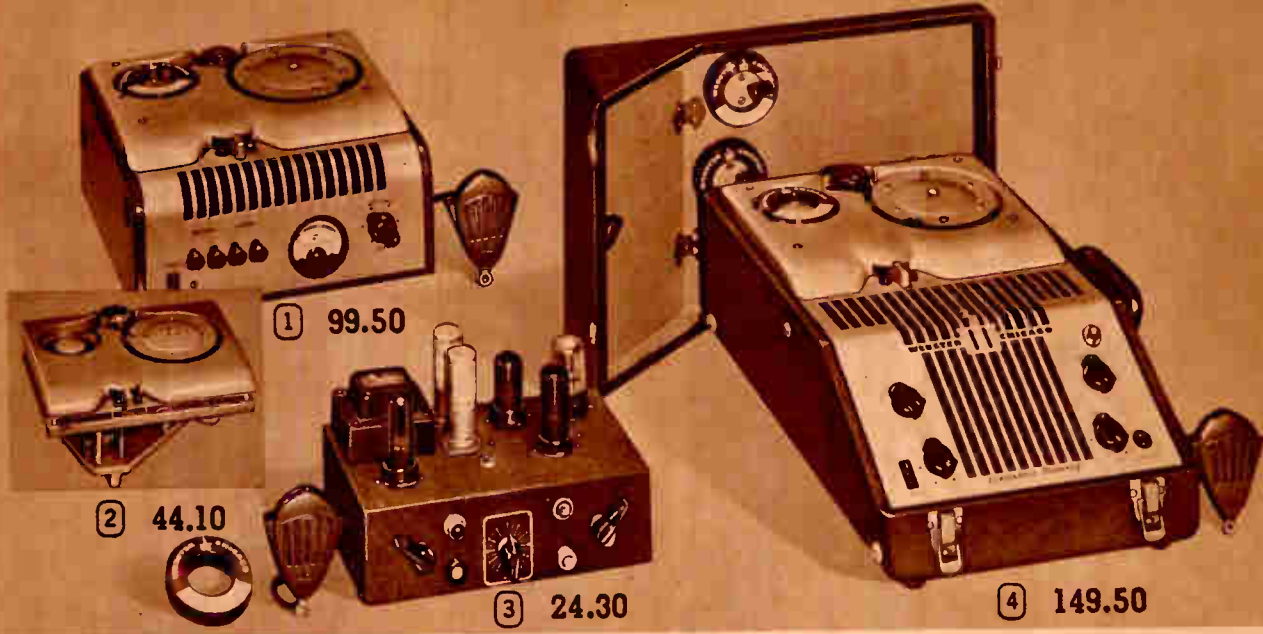
High quality audio amplifier and PM speaker assure clear 5 watts output, provide undistorted sound.

Phono playback—Heavily weighted turntable. Featherlight tone arm.

Modern portable case—Covered in beautiful two-tone brown alligator grained leatherette. With Electro-vane microphone, one 15 and one 30 min. spool of recording wire.

35N22527—Shpg. wt. 45 lbs. **149.50**





## WEBSTER-CHICAGO quality wire recorders and accessories

### COMPLETE UNITS, OR BASIC MECHANISMS FOR CUSTOM INSTALLATIONS

#### Wire Recorder Mechanism

1. Model 78 for use with radio or amplifier. Attractive metal cabinet designed for custom installation or for table top use. Just plug into AC outlet and it's ready to record. For playing back recordings, connect to radio or medium gain amplifier. Push-button selector switches. Built-in pre-amplifier, inter-stage amplifier, erase oscillator, bias oscillator recording level meter and power supply. With cable, connectors, crystal hand microphone, tubes, 15 minute spool of wire, instructions. 11 x 11 $\frac{3}{4}$  x 6". For 105-125 volt, 50-60 cycle AC.

35N22519—Shpg. wt. 25 lbs..... **99.50**

#### Recording Wire and Accessories

35N16300—15 minute spool.....2.00  
Lots of 10, Each.....1.27  
35N16301—30 minute spool.....3.00  
Lots of 10, Each.....1.91  
35N16302—60 minute spool.....5.00  
Lots of 10, Each.....3.18  
35N16305—Empty metal spool......75c  
Lots of 10, Each......44c  
35N16308—Empty plastic spool.....50c  
Lots of 10, Each......28c  
35N16303—10 ft. input cord assembly for connecting to radio or phono.....1.75  
35N16304—10 ft. output cord assembly for connecting to external speaker or amplifier.....1.75

#### Wire Recorder Foundation Unit

2. Model 79. A basic mechanism around which the amateur or experimenter may build a magnetic wire recording and playback unit. Well suited to built-in applications. One 15 minute spool of standard steel recording wire supplied. 13" x 8" x 7 $\frac{3}{4}$ ". With oscillator coil, circuit diagrams and instructions for building four tube combination pre-amplifier and "erase and bias" oscillator.

35N22507—Shpg. wt. 10 lbs..... **44.10**

#### Oscillator and Bias Kit

3. Combine this kit of parts with the Model 79 Foundation unit above for custom installations in your radio or amplifying system. Provides amplification and erase circuit for recording and playback through your radio and amplifier.

Use with crystal or high impedance dynamic microphone with sensitivity of—55 db, crystal phono pickup, or radio receiver when signal is 1.0 volt. Output on playback is approx. 1.0 volt, which may be used for monitoring with earphones or used to drive a power amplifier or radio. Glow volume indicator provided for constant monitoring of recording level. Wrinkle finish cabinet and cover. Size: 5 $\frac{1}{2}$ " x 10" x 9". For 115 volts, 60 cycle AC. With cover, 6 ft. line cord, and instructions but less tubes. Uses: 6SJ7, 6SN7, 6V6, 6X5.

35N22518—Shpg. wt. 10 lbs..... **24.30**

#### Complete Portable Wire Recorder

4. Model 80. All-purpose recorder and play-back unit. No needles to change, no blanks to watch—just flip a switch and start recording. Make recordings of voice, music, radio programs and business conferences. Automatically erases old recording while making new one. Lightness and ability to record for full hour makes it ideal for on-the-spot news interviews. Magnetic wire recordings are permanent and can be replayed thousands of times. A single word or a whole program can be easily erased. Built-in 6-inch speaker and 3 tube amplifier for play-back. External speaker or power amplifier can be easily plugged into front panel.

Attractive case covered in dark Brown leatherette resembles expensive overnight bag when closed. 17 $\frac{1}{2}$  x 11 $\frac{1}{2}$  x 7 $\frac{1}{2}$ " With microphones and three spools of recording wire (two 15 minute and one 30 minute spool).

35N22508—Shpg. wt. 32 lbs.... **149.50**

#### Table Model Wire Recorder

Model 81. Same as above except table model for commercial, industrial and professional use. For permanent or semi-permanent installations. Gray and Maroon Hammerloid finish metal case. Magic Eye level indicator. For 105-120 V. 50-60 cyc. AC. 12 $\frac{1}{2}$  x 11 $\frac{1}{2}$  x 9 $\frac{7}{8}$ ".

35N22537—Shpg. wt. 29 lbs.... **114.50**

## TELEPHONE pickup, recorder accessories

#### Induction Telephone Pick-up

5. Picks up telephone conversations with no tapping of wires or special telephone circuits. Simply place the phone base, either cradle or upright type, on the pickup platform and connect the leads to the high-impedance input of any medium gain audio amplifier or directly to recorder. When used for Public Address work, a speaker at home or in another city can address large audiences without special telephone company equipment.

35N22523—Shpg. wt. 3 lbs..... **3.88**

35N22524—Induction coil only.. **4.70**

#### Model 83 Control Box

6. Level indicator push button control for recording directly from radio, microphone, or playback of Model 80.

35N16317—Shpg. wt. 3 lbs..... **29.95**

#### Model WC-286 Wire Conditioner

7. Demagnetizes over recorded wire.

35N16308—Shpg. wt. 2 oz..... **1.75**

#### Recording Wire Spool Album

8. Stores 10 spools recording wire.

35N16307—Shpg wt. 1 lb..... **1.50**







## TRANSMITTING GEAR for beginners and advanced amateurs

### LATEST LOW-COST EQUIPMENT—TRANSMITTERS, EXCITERS, MULTIPLIERS

#### Sonar Narrow Band FM Exciter

1. Model XE-10. Converts any 6, 10 or 11 meter transmitter for Narrow Band FM operation. Also has Output in 40 meter band—using 80 meter crystal. Easily connected into socket or grid circuit of VFO. Eliminates use of speech amplifiers, modulator and their power supplies and permits the final to be used as highly efficient Class C stage. Increases power output, reduces input power consumption. 3 watts output at 7 MC. Link couples to transmitter. Output can be received on any AM set. Contains microphone amplifier, crystal oscillator, buffer modulator and 115 V 60 cyc. power supply. With tubes, less crystal. Gray cabinet, 9 $\frac{3}{8}$ " x 7" x 5".  
**29N21006—Shpg. wt. 12 lbs.... 39.45**

#### Meissner Signal Shifter Kit

2. Amateurs, save money! Build this newly designed precision signal shifter. Features built-in 10, 11, 15, 20, 40 and 80 meter turret mounted coils. 6 pos. band-switch, no coils to change. ECO or Xtal 6V6 osc., 807 doubler amp. Eye tube key and tuning indicator. Voltage regulation. Built-in power supply uses VR150, VR75, 2-5Y3. 6 watts output. Vernier dials. With instructions, tubes and all necessary parts including solder and wire. Overall Dimensions: 13 $\frac{1}{2}$ " x 13 $\frac{1}{4}$ " x 8 $\frac{3}{4}$ ".  
**29N21042—Shpg. wt. 23 lbs..... 49.75**  
**Model EX.** As above, but all wired.  
**29N21044—Shpg. wt. 23 lbs..... 99.50**  
**29N10394—6 Meter Coil Strip..... 4.00**

#### Bud Variable Frequency Oscillator

3. Model VFO-21. Variable Frequency oscillator uses 6F6 oscillator, 6V6 amplifier, VR105 voltage regulator, NE51 tuning indicator and 5Y3GT/G rectifier. Plug-in coils for highest efficiency. 4.5 watts output. Voltage regulator makes output stability comparable to crystal oscillator. Provisions for switching to crystal operation at any time. Keyed in screen grid. 115 V. 60 cycle AC. With tubes, three 40 meter coils. Gray wrinkle cabinet, 12 $\frac{1}{2}$ " x 8 $\frac{1}{4}$ " x 8".  
**29N21009—Shpg. wt. 17 lbs..... 51.45**  
**29N9959—10 Meter Coil Set..... 3.92**  
**29N9960—20 Meter Coil Set..... 3.92**  
**29N9961—80 Meter Coil Set..... 3.92**

#### Millen 50-Watt Transmitter-Exciter

4. Millen 90800. For standard rack. Input to 750 volts at 250 ma.—45 V and 6.3 V at 1.8 amps. Osc. is tri-tet for 2X or 4X xtal frequency, or by shorting cathode tank, output is fundamental. Drives 807 as amplifier or doubler. 0-200 plate MA meter. With 10 meter coils, less tubes and xtals.  
**29N21021—Shipping weight 15 lbs..... 42.50**

Band	Cathode Coil	Plate Coil
160 Meters	29N9950	Not Used
80 Meters	29N9951	29N9953
40 Meters	29N9952	29N9954
20 Meters	Not Used	29N9955
10 Meters	Not Used	29N9956
Shpg. wt. 2 lbs.	Each.....90c	Each.....1.25

#### Sonar All-Band NBFM Exciter

5. Model VFX 680. NBFM phone and CW exciter with built-in power supply. 160 meter band VFO. Oscillator operates from VFO to Xtal control. Variable frequency shift from 30 KC at 80 meters to 480 KC on 6 meters. Covers the 80, 40, 20, 15, 11, 10, 6, 2 meter bands. Output 4 to 6 watts. Eye tube deviation indicator. External Relay control for remote operation, CW and break-in operation. Plug-in coils give two-band operation on one coil. 110-125 V. 50-60 cyc. With tubes, 40-20 meter coil, less crystal. Gray. 5 $\frac{1}{4}$ " x 19" x 8 $\frac{1}{2}$ ".  
**29N21007—Shipping weight 30 lbs..... 87.45**  
**29N10430—10 Meter Coil**  
**29N10431—15 Meter Coil**  
**29N10432—20 Meter Coil**  
**29N10433—40 Meter Coil**  
**29N10434—80 Meter Coil**  
**Shpg. wt. 1 lb...Each...1.50**

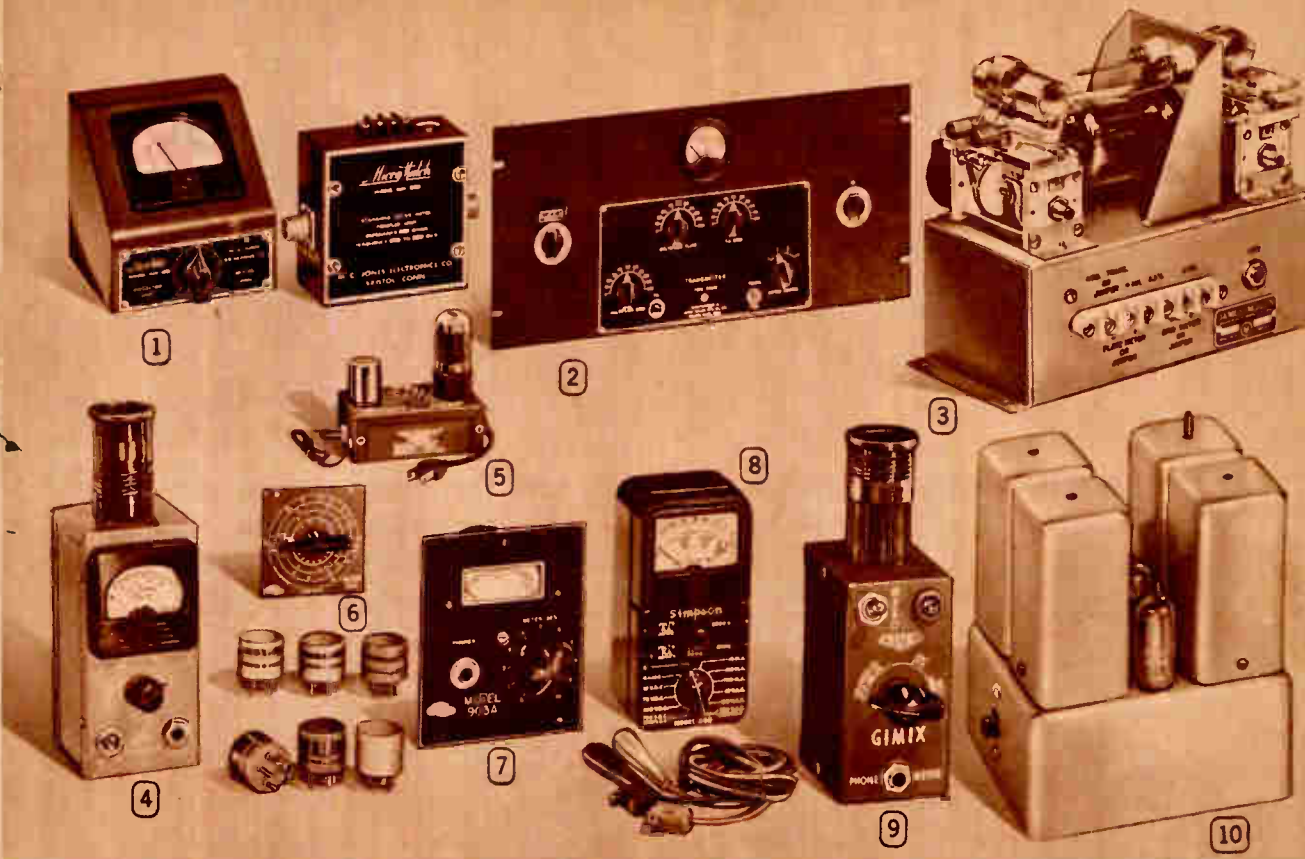
#### Sonar Calibrated Frequency Control Exciter

6. Versatile addition to amateur equipment. Oscillator tuning range from 1620 to 2000 KC on 160 meter band. RF output covers 80 and 40 meter bands at 75 to 300 ohms impedance. Power output 4 to 5 watts, link couples to any transmitter. Directly calibrated dial with 6 to 1 vernier ratio. 1000 KC crystal adjusts to resonate with WWV. Uses 6SK7, 6SL7GT, 6V6, 6L6, VR-150, 5Y3GT. 110-125 volt, 50-60 cycle. 7 x 13 x 9".  
**29N21018—With tubes, less crystal. Shpg. wt. 20 lbs.... 59.75**

#### Millen Single Side Band Selector

7. Newly designed and engineered to provide single side band selection with your present receiver. Eliminates most of the heterodyne interference in phone reception as well as increases selectivity in CW reception. Latest type circuit uses: 1-6SA7, 1-6SK7, 1-6SN7G, 1-5Y3GT rectifier. Unit housed in compact easy to mount case finished in black crackle finish and smooth black control panel.  
**29N21135—Shipping weight 10 lbs..... 75.00**





## HAM EQUIPMENT for stationary and mobile operators

### STAY-ON FREQUENCY—INCREASE YOUR ANTENNA POWER OUTPUT

#### Micro-Match RF Power Meter

1. Newly developed—measures standing wave ratio and RF power on coaxial transmission lines. Highly efficient unit accurately makes measurements without absorbing appreciable power from the line. Can be left in the line to monitor standing wave ratio and RF power while transmission line is in use. Coupler unit can be placed in line at any point or can be mounted directly inside transmitter. The indicator in compact meter case can be placed at any distance from coupler or may be built into transmitter panel. Power meter has frequency range from 3 to 162 MC plus power range from 20 to 500 watts.

Each  
 29N21538—52 Ohm Input..... } **37.45**  
 29N21537—72 Ohm Input..... }

#### Triplett Absorption Frequency Meter

4. A band-switching tuned absorption type frequency meter covering 3.5-4, 7-7.3, 14-14.4, 20-21.5 and 28-30 MC. For checking frequency harmonics, parasitics, oscillations, standing wave ratio and neutralization. Incorporates germanium crystal and DC milliammeter for greater sensitivity. Direct calibration on dial. Switching permits instantaneous band change. Audio jack for phone monitoring. Fully shielded. Coil is removable—others may be substituted for special bands. Gray Hammerloid finish with black trim. Does not require batteries. 7½" x 2½" x 2¼"

29N21479—Shpg. wt. 5 lbs..... **15.92**

#### Bud Frequency Calibrator

5. Completely self-powered. Gives check points every 100 KC thru 30 MC. Adjustment for zero beating WWV. Standby on-off switch. With tube, crystal.

29N21014—Shpg. wt. 5 lbs..... **13.96**

#### Millen High Frequency Transmitter

2. Model 90810. 75 watt crystal controlled transmitter for operation on 10, 11, 6 and 2 meter bands. Makes an ideal low-priced transmitter for starting an amateur station. Use of new high frequency plug-in coils makes possible rapid switching of bands. Third over-tone frequency output crystal provides high output with a minimum of tubes for 6 and 2 meter operation. Unit consists of Bliley CCO-2A using 6AG7 crystal oscillator, 2E26 tripler and 829B power amplifier stage. Panel 8¾x19" for standard relay rack mounting. HF transmitter comes complete with one set of 10 meter coils, but less tubes, power supply and crystal.

29N21136—Shpg. wt. 25 lbs..... **69.75**

#### Silver Absorption Wavemeter

6. Model 903. 1600 KC to 500 MC. Low-loss tuning capacitor, inductor socket, resonance-indicating lamp. Wide frequency—two tuned circuits. On six ranges inductor is paralleled with capacitor, seventh (400-500 MC) is quarter-wave transmission line with series tuning (no lamp coil) 3½ x 3¼ x 3¼". Less Inductors.

29N21291—Shpg. wt. 1 lb..... **3.30**

#### Plug-In Inductors—Each 65c

MC	MC
29N21292 ... 1.6-3.7	29N21296 ... 40-100
29N21293 ... 3.5-8	29N21297 ... 100-300
29N21294 ... 8-15	29N21298 ... 400-500
29N21295 ... 17-40 MC	

#### Silver Field Strength Meter

7. Model 903A. Converts the Model 903 Wavemeter to a field strength meter by adding 1N34 rectifier, 0-1 MA meter sensitivity control and phone jack.

29N21290—Shpg. wt. 2 lbs..... **14.50**

#### High Frequency RF Amplifier

3. Model 90811. Amplifier is the same efficient unit as used in the Model 90810 transmitter. Uses 829B or 3E29 tube with a normal output of 75 watts. Extremely compact chassis, 4"x7¾" exclusive of flanges. Overall height 6¾".

29N21137—Shpg. wt. 8 lbs..... **33.00**

Plug-in plate and grid coils for use with 90810 transmitter and 90811 amplifier.

29N10174—20 Meter Grid.....	<b>1.80</b>
29N10175—10 Meter Grid.....	<b>1.80</b>
29N10176—6 Meter Grid.....	<b>1.80</b>
29N10177—2 Meter Grid.....	<b>1.80</b>
29N10178—20 Meter Plate.....	<b>1.80</b>
29N10179—10 Meter Plate.....	<b>1.80</b>
29N10180—6 Meter Plate.....	<b>1.80</b>
29N10181—2 Meter Plate.....	<b>1.80</b>

#### Simpson 240 Hammeter VOM

8. 1000 ohms/volt. Ranges: 0-15/150/750/3000 AC volts; 0-15/75/300/750/3000 DC volts; 0-15/75/300/750 DC ma; 0-3000/300,000 ohms. 3x5½x2½". 3 lbs.

29N21579—With test leads..... **21.31**

#### Bud Gimix Wavemeter

9. Absorption type wavemeter covers 80, 40, 20, 15 and 10 meter bands. Jack for phone monitor. Use as field strength meter, neutralization and carrier shift indicator for pretuning antennas. 6"x2"x2¾". Requires no batteries.

29N21008—Shpg. wt. 5 lbs..... **8.13**

#### Single Side Band Selector

10. For 455-465 KC IF. Selectivity curve 2.4 KC wide across top, only 4.7 KC wide 1000 times down. Uses 6BE6, 6BA6, and a 6C4. Less tubes. Wt. 5 lbs.

29N21281—Wired, less tubes.... **18.90**

29N21282—Kit, less tubes..... **15.90**





① 92.80

② 44.70 up

③ 150.00

## TRANSMITTING EQUIPMENT — mobile and permanent station TRANSMITTERS AND KITS FOR THE BEGINNER AND ADVANCED AMATEUR

### Stancor 125 Watt Kit

1. Model ST-202-A. Build your own compact desk-type transmitter to cover the 80, 40, 20, 15, 11 and 10 meter bands. Xtal controlled CW, AM or FM easily added. You get cabinet with built-in chassis, marked panel and bottom plate, plus all circuit and construction components, instruction manual. Only extras needed are ma meter, 5 tubes, crystals, and set of standard PA tank-coil plug-ins.

Adjustable link coil antenna coupling. Simultaneous screen keying of both exciter tubes. Break-in operation. For PA you can use a 35T, 35TG, HK54, 5514, 811, or 812 (wide range neutralizer provided). Uses 150 watt B & W coils. 14-1/16" x 9" x 13-3/16". Gray wrinkle finish.

29N21020—Shpg. wt. 55 lbs..... **92.80**

### Stancor Mobile Xmitter Kit

2. Model ST-203A. Plate Power Input, 25 watts, for mobile and fixed location phone operation, 27 to 32 MC. "Press-to-talk" operation. Silver-Gray Hammetone finish. Tubes Used: 6V6 harmonic oscillator working from 7 MC Xtals, 2E26 Class C amplifier, 6J5 grounded-grid speech amplifier, 6V6 push-pull Class A Amp.

Accessories needed: Tubes, crystals, single button mike with push-to-talk switch, dynamotor or vibrator pack to deliver 400-500 VDC @ 160-200 MA, quarter wave whip antenna system and remote control components (SPST switch, mike jack, cables, etc.) Xmitter measures 8 5/8 x 7 3/4 x 6 3/4". Shpg. wt. 11 lbs.

29N21024—Xmitter Kit (not wired) **44.70**  
29N21034—Transmitter, wired..... **58.90**

### Meck 60 Watt Transmitter

3. Compact phone and CW unit extremely simple to operate. 80 to 10 meters. Combined plate and screen modulation. Built-in antenna relay; plug-in battery or Vibrapack operation, meter switching, front panel xtal socket, standby switch.

Tubes Used: 1-6L6G oscillator (osc-doubler on 10 meters), 2-6L6G final amplifier doubler, 1-6SN7GT/G 2 stage speech amp., 1-6SN7GT/G phase inverter driver, 2-6L6G push-pull modulator, 1-5U4G PA rectifier, 1-5U4G modulator, speech amp and osc rectifier. With tubes, plug-in coils for 10-11 meters. 15 x 11 x 9".

30N21030—Shpg. wt. 45 lbs..... **150.00**  
30N21031—80 meter coil set..... **5.50**  
30N21032—40 meter coil set..... **5.50**  
30N21033—20 meter coil set..... **5.50**

### Sparto Two-Way Hand Held Transceiver

4. New exclusive design. 144-148 MC (2 meter band). Ideal for transmitter hunts, emergency work, boating, flying or racing. Maximum performance, smallest possible size and weight. Push-to-talk. Set at factory, stays in band unless tampered with. Slide-rule dial can be locked. Folding dipole antenna. Stable oscillator and receiver, 10 x 3 x 2". Wt. 5 lbs.

29N22450—With tubes, less batteries..... **33.81**  
20N20627—"B" Batt. (2 required.) Each..... **1.88**  
20N20622—"A" Batt. (2 required.) Each..... **6 1/2c**

### Micamod XTR-1 Transmitter Kit

5. Build your own 45-watt telegraph transmitter. No coils to plug in—a flip of the switch puts you on the 20, 40, or 80 meter bands. Uses a 6AG7 tube in an electron coupled crystal oscillator circuit. Voltage regulation in power supply and low crystal current result in a very stable signal output. Pi-network will match any antenna system. Requires one each 83, 6AG7, 1614/6L6, a crystal and key. 11 x 5 1/4 x 7 1/2" high built up. Gray enamel.

29N21028—Shipping weight 10 lbs..... **33.32**

### Sonar Model MB-611 NBFM Transmitter

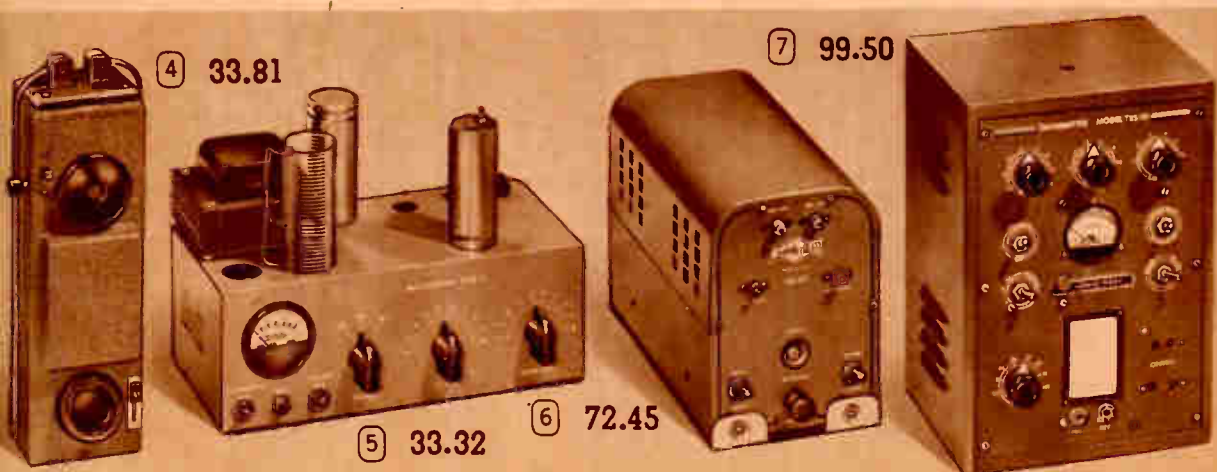
8. Small compact transmitter for 10 and 11 meter operation. Can be installed in any boat or airplane, fixed station, or used as driver for high power final. Phase modulator with direct control control. VFO may be used. Input for hi-impedance xtal or dynamic mike. Stable operation. Dual RF and Deviation indicator. Deviation adjustable from 2 to 3 KC. Power output 22.5 watts. Requires 250/600 VDC @ 100 ma from vibrator, dynamotor, or AC supply. In Gray case, size 10 1/8 x 7 x 5". With tubes, but less crystal and power supply.

29N21019—Shipping weight 20 lbs..... **72.45**

### Harvey-Wells 50 Watt Phone and CW Xmitter

7. No plug-in coils! Covers 8 bands from 80 to 2 meters at the flick of a switch. Crystal controlled on all bands. No oscillator or multiplier tuning. For fixed station or mobile operation from AC, Vibrapack, or dynamotor. Use as exciter when increasing output. Uses 6AQ5 crystal oscillator, 6AQ5 buffer-multiplier, 807 final amp., 2-6L6 Class B modulators, 12 3/4 x 7 3/4 x 9".

30N21038—Complete with tubes. Shpg. wt. 20 lbs..... **99.50**  
30N21039—Power supply for above. Shpg. wt. 27 lbs..... **39.50**



④ 33.81

⑦ 99.50

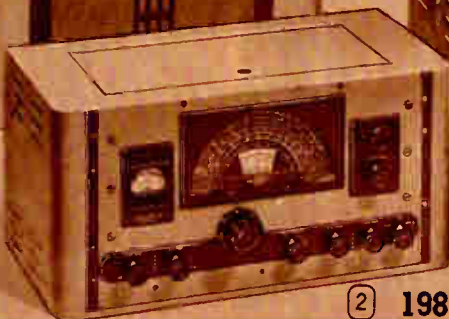
⑤ 33.32

⑥ 72.45





① 98.70



② 198.70



③ 177.30

## COMMUNICATIONS receiving equipment for the amateur RME AND HAMMARLUND RECEIVERS . . . RME PRE-SELECTORS, CONVERTERS

### Low-Priced RME-84 Receiver

1. Low cost superhet with complete phone and CW coverage from 540 KC through 44 MC. High quality, heavy-duty components used throughout. Bandspread on any setting of main dial is provided by a vernier dial which has 200 divisions on the edge of a 3½" disk. Scale makes five complete revolutions for 180° rotation of tuning capacitor. Tuning mechanism is a planetary drive system, spring-loaded to eliminate all back lash. Calibration is accurate within 1/10 of 1%.

Tubes Used: 7B7 RF, 7S7 Converter, two 7B7 IF's, 7K7 det/1st AF, 6G6G output, 7K7 noise limiter/BFO, 5Y3GT rectifier. Gray Enamel finish. Overall size: 18" x 9¾" x 9¾". Complete with tubes and self-contained PM speaker. For operation on 110 volts, 60 cycles, AC only.

30N21011—Shpg. wt. 35 lbs.....**98.70**

### RME VHF-152-A Converter

4. Uses efficient double conversion system when connected to your receiver. 2, 6 and 10 meters, 28-29.7, 50-54, 144-148 MC. Image rejection ratio 54 db. Extremely stable because of new engineering design, VR-150 regulation and temperature stabilization in the VHF oscillator circuits. Low noise level. Sensitivity 2 microvolts. Miniature Tubes: 6AK5 RF, 6AU6 mixer, 6J6 oscillator. Power supply uses 5Y3GT and VR-150. Black 7-inch tuning dial, raised white numerals. Separate scale for each of three bands, calibrated in MC. Entire dial indirectly illuminated. Planetary gear system drive. "Out-in" switch. Shielded Cable for connection to receiver. With tubes. For 110-120 volts, 50-60 cycle. 11" x 11" x 12".

29N21013—Shpg. wt. 15 lbs.....**86.60**

### RME-45 Communications Receiver

2. All-coverage phone and CW Reception with "Cal-O-Matic" automatic tuning and scale calibration. Band-spread scale 5:1 to main dial. Covers 550 KC to 33 MC in six overlapping bands. Double-spaced oscillator tuning capacitor holds frequency drift to a minimum. Relay control and break-in connections provided. 5-position xtal filter. Calibrated DB-R meter.

Tubes Used: 7B7 RF, 7J7 converter, two 7B7 IF's, 7B6 det. and BFO, 7C7 1st AF, 7A6 noise limiter, 7C5 output and 80 rectifier. 22¼" L, 12" W, 11" H. With tubes, speaker in matching cabinet.

30N21010—Shpg. wt. 56 lbs.....**198.70**

NBFM plug-in unit for RME-45. Provides choice of NBFM or AM operation.

30N21040—Shpg. wt. 3 lbs.....**19.50**

### RME HF 10-20 Converter

5. Eliminates images, increases gain, improves signal-to-noise ratio. Oscillator circuits temperature stabilized and voltage regulator insures stability. Miniature tubes used for sensitivity, stability, low circuit noise. Covers 20, 15, 11 and 10 meter bands. Uses 6BA6 RF amplifier, 6J6 twin triode mixer, 5Y3 rectifier, VR-150 voltage regulator. For 110 volts, 50-60 cycles, AC. Standard Model (A) in cabinet to match RME-45 receiver. Gray Enamel finish. 11" x 12" x 11". With tubes.

29N21026—Shpg. wt. 15 lbs.....**77.00**

Type "S" (B) Electrically same as Standard Model, but cabinet matches RME 84 Receiver. With tubes. 9½ x 10¼ x 10¼".

29N21027—Shpg. wt. 14 lbs.....**77.00**

### Hammarlund HQ-129X Receiver

3. Main tuning dial calibrated in six ranges of 540-1320 KC, 1320-3200 KC, 3200-5700 KC, 5700-10,000 KC, 10-18 MC and 18-31 MC. Calibrated bandspread dial. Single wire antenna or balanced transmission line. Six position xtal filter. Series type noise limiter. Antenna effects at different frequencies quickly adjusted by compensator.

Tubes Used: 6SS7 RF amp, 6K8 converter, 6SS7 1st IF, 6SS7 2nd IF, 6SS7 3rd IF, 6H6 2nd detector, AVC, noise limiter, 6SN7GT/G first AF and 5-meter, 6V6GT/G audio output, 6SJ7 BFO, 5U4G rectifier, and OC3/VR105 voltage regulator. For 115 volts, 60 cycles, 13-15/16 x 20% x 11" With tubes, less speaker.

30N21035—Shpg. wt. 52 lbs.....**177.30**

30N21036—Matching Speaker in Cabinet. ....**11.85**

### RME DB-22A Pre-Selector

6. Selectivity and signal-to-noise ratio improved. 540 KC to 44 MC. 30 db increase in gain. Adds three tuned circuits, two 6BA6 miniature tubes ahead of RF stage in your receiver. 50 db image ratio at 28 MC. Complete with power supply. Input circuit for matched doublet plus single wire to ground permits high gain matching to any antenna. Output 150-350 ohms, direct connection to receiver antenna.

Antenna switch couples receiver directly to antenna when unit is not in use. Range covered in four bands. Smooth planetary gear system. 7" dial scale, black background. White numerals, indirectly illuminated. Separate gain control. 110-125 volts, 50-60 cycles, AC. Two-tone Gray. Matches RME-45. 11" x 12" x 11".

29N21012—Shpg. wt. 21 lbs.....**71.00**

173



④ 86.60



⑤ 77.00



⑥ 71.00





1 57.50



3 89.50



2 97.50



4 99.50



5 125.00



## NATIONAL RECEIVERS assure professional performance DESIGNED WITH EXPENSIVE-SET FEATURES — YET MODERATELY PRICED

### New NC-33 Communications Receiver

1. Latest addition to National's fine line of quality receivers —packed with expensive set features yet priced within the amateur's reach. Four tuning bands provide continuous coverage from 500 KC to 35 MC. Main tuning and bandspread capacities connected in parallel on all bands for bandspread operation at any frequency within tuning range. Fully calibrated dial—stations can be readily separated and logged. Amateur, police and foreign broadcast bands clearly identified. Band-switching achieved with 4-position switch.

Other big set features include Automatic Noise Limiter, CW oscillator and pitch control for adjustment of beat note, Send/Receiver Switch, and choice of two audio output circuits: 5" PM speaker or Phone-Jack which cuts out built-in speaker when headphones are in use. Antenna input designed for any single wire or doublet antenna. Tunes to ship calibrating and international SOS band. Front-panel mounted controls include: Main tuning, band selector switch, beat oscillator pitch control, code-phone switch, noise limiter switch, and audio gain.

New superhet circuit uses latest type high efficiency tubes: 12SA7 Converter, 12SG7 IF Amplifier, 12H6 2nd Detector, AVC, A.N.L.; 12SL7 1st Audio CWO. 35L6GT Audio output, and 35Z5GT Rectifier. For 105-125 V, 50-60 cycles AC or 105-125 V DC. Cabinet has Gray enamel finish. 16½" x 8¾" x 8½".

30N21267—NC-33 Receiver. Shpg. wt. 24 lbs.....**57.50**  
30N21276—Tilt Base for NC-33. Shpg. wt. 5 lbs.....**3.95**

### National NC-46 Communications Receiver

2. Designed to provide true National professional performance and styling in the medium price field. Satisfies the requirements of AC-DC plus shipboard operation, with peak performance over a total range of 540 KC to 30 MC. Tuning range is divided into 4 bands with 70 dial divisions in the 80-meter band, 50 in the 40-meter band, 56 in the 20-meter band, and 40 in the 10-meter band. Long, clear-vision calibrated slide-rule dial is professional constructed with the new sloping front. Separate electrical bandspread condenser and dial scales provide vernier tuning on all short-wave bands. Both main and bandspread tuning controls are inertia-controlled for smooth and easy tuning.

Controls: Main Tuning Dial, Bandspread Tuning, Sensitivity Control, Volume Control, Tone Switch, Beat Oscillator On-Off Switch, AVC Switch, Noise Limiter Switch, Band Selector Switch, Standby Switch, and Power On-Off Switch. Terminals at rear for antenna, 8-ohm speaker, break-in terminals, and phone-jack and extractor-type fuse post. Push-pull audio output stage delivers approximately 4 watts, ample even for shipboard.

Circuit consists of a 6K8 converter, two 6SG7 IF stages, 6H6 detector/limiter, 6SF7 AVC amplifier, 6SJ7 BFO, 6SC7 phase inverter, two 25L6GT output and 25Z5 rectifier. Sensitivity approx. 5 microvolts for 50 milliwatt output over entire range. 105-130 volts AC-DC. 9½" x 17¾" x 12¾".

30N21259—NC-46 Receiver. Shpg. wt. 50 lbs.....**97.50**  
30N21258—Matching Speaker in Cabinet. Wt. 9 lbs.....**9.90**

### National NC-57 Receiver

3. 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 stabilized oscillator circuit holds wave signal steady when voltage varies. Controls include Main Tuning, Bandspread Tuning, Band Switch, RF Trimmer, BFO-MVC-AVC, ANL, AF Gain, BFO Pitch, Tone Control, On-Off Switch.

Uses: 6SG7 RF amp., 6SB7Y 6G7 IF amp., 6H6 Det., AVC, 6G7 amp., BFO, 6V6GT Audio output, VR-150 voltage rectifier, for single, double or push-in. Provision made for "S" meter plus other 100 V, 50-60 cycle AC. 16½x11¾x8¾". Wt. 24 lbs.

30N21275—NC-57 Receiver. Shpg. wt. 24 lbs.....**89.50**  
30N21274—Tilt Base for NC-57. Shpg. wt. 2 lbs.....**14.95**  
30N21276—Tilt Base. Wt. 5 lbs.....**3.95**

### NC-108 FM Receiver-Tuner

4. National's newest high fidelity product! A dual purpose unit for use either as a complete self-contained FM receiver with built-in 5" PM speaker or as a high fidelity FM tuner only. May be used with public address or other systems as well as with conventional radio receivers. Monitor switch permits optional use of speaker.

Frequency range of 87 to 109 MC with dial calibrated in both megacycles and channels. Includes Volume and Tone controls for both self-contained and external audio systems. Maximum audio voltage delivered to output terminals approximately 10 volts. Overall response flat within 2 db from 50 to 18,000 cycles. Tube complement: 6BA6 RF amplifier, 6AG5 Mixer, 6C4 Heterodyne Osc., 3—6SG7 1st, 2nd, 3rd IF amplifiers, 6H6 Ratio discriminator, 6SJ7 1st Audio, 6V6GT Monitor power amplifier, 6U5/6G5 Tuning indicator and 5Y3GT rectifier. 110-125 V 50-60 cycle AC. Metal cabinet, Gray enamel finish. 16½x8¾x8½".

30N21273—NC-108T. Wt. 24 lbs.....**99.50**  
30N21276—Tilt Base. Wt. 5 lbs.....**3.95**

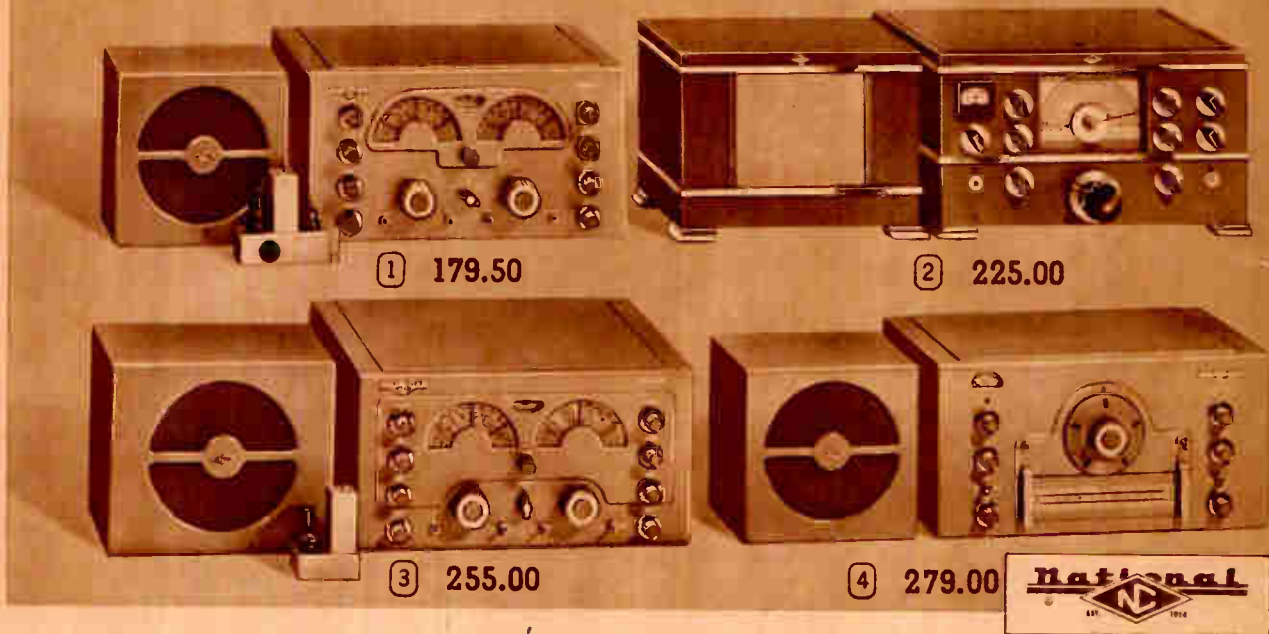
### HFS Receiver/Converter

5. National's newest Very High Frequency installation! Ideal for amateurs, laboratories, news services and other institutions requiring compact, dependable VHF reception. High frequency range 27 to 250 MC. Superior selectivity and sensitivity make this superhet super-regenerative circuit adaptable for AM, FM and CW reception as well as VHF converter with receivers tuning to 10.7 MC.

Two-gang Main Tuning Capacitor, panel-controlled Trimmer Capacitor and 6 sets of plug-in coils tune the receiver in six bands. Tube complement: 6AK5 1st Det. 9002 HF Osc. 6SG7 IF amp., 6SK7 2nd detector, 6J5 1st Audio, 6V6GT/G Audio output and 6J5 Converter output. Power furnished by separate unit—Power Supply listed below is excellent where 115-230 V, 50-60 cycle AC is available. Also operates with combination of "B" and storage batteries. Gray enamel. 16½" x 8¾" x 8½". Wt. 25 lbs.

30N21271—HFS Receiver.....**125.00**  
30N21272—Power Supply. 15 lbs.....**22.43**  
30N21276—Tilt Base. Wt. 5 lbs.....**3.95**





## NATIONAL RECEIVERS — world-famous for fine performance

### ALL HAVE WIDE RANGE CRYSTAL FILTERS FOR FLAWLESS RECEPTION

#### National NC-173 Communications Receiver

1. New Receiver for amateur and commercial use, with complete coverage 540 KC to 31 MC, plus 48-56 MC for Amateur 6-meter band. Separate bandspread tuning knob and dial for 80, 40, 20, 10 and 6-meter amateur bands. New "double-action" type noise limiter with variable threshold control for both CW and phone signals. Separate AVC amplifier permits using AVC on phone and CW. New wide range crystal IF filter offers six positions to meet all receiving conditions.

Other features include "S" meter in AVC circuit for use with phone and CW signals, continuously variable tone control, headphone and phono jacks on front panel. 3.5 watts audio output at 8 or 500 ohms for speaker operation. Antenna input circuit equipped with panel trimmer for maximum performance with any antenna. Superhet circuit with 11 tubes and rectifier—1 R.F. Amp., separate stabilized HF osc., 1st det., 2 IF's, diode 2nd det., AF limiter, AVC amp., stabilized BFO, 2 AF stages. For 110-120 or 220-240 v., 50-60 cycles. Gray metal cabinet, 19 $\frac{3}{4}$ x10 $\frac{1}{2}$ x12 $\frac{1}{2}$ ".

- 30N21254—Table Model Receiver. Shpg. wt. 70 lbs. .... **179.50**  
 30N21256—Rack Mounting Receiver. Shpg. wt. 70 lbs. .... **179.50**  
 30N21255—Table Model Speaker. 8 ohms imp. Wt. 12 lbs. .... **10.00**  
 30N21257—Rack Mounting Speaker. 8 ohms. imp. Wt. 12 lbs. .... **10.00**  
 30N21279—NBFM Adaptor for Receiver above. Wt. 3 lbs. .... **17.95**  
 30N21277—Tilt Base for Receiver above. Wt. 5 lbs. .... **3.95**

#### Deluxe NC-183 Communications Receiver

3. Latest engineering and radio circuit developments in a modern high gain superhet circuit. Complete frequency coverage 540 KC to 31 MC plus 48 to 56 MC amateur bands. Two tuned RF stages provide extremely high sensitivity and image rejection. Minimum drift 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 at maximum level of intelligibility despite channel interference. Noise limiter suppresses electrical interference on both phone and CW.

Illuminated signal strength meter with adjustable sensitivity. Output circuit uses two 6V6 tubes providing undistorted output of 8 watts, with 11 watts maximum. Output terminals for 8 ohm speaker or 500 ohm line. Provision for connecting high-impedance record-efficient pick-up plus Narrow Band FM adaptor unit. Highly-efficient low-drain tubes include: 2—6SG7 RF, 1—6SA7 det., 1—6J5 oscillator, 2—6SG7 IF's, 1—6H6 2nd det., 1—6SJ7 BFO, 1—6AC7 AVC amplifier, 1—6H6 noise limiter, 1—6SJ7 AF, 1—6J5 phase inverter, 2—6V6GT audio output, 1—VR-150 and 1—5P4G rectifier. For 110-120 or 220-240 v., 50-60 cycles AC. Smooth Gray enamel steel cabinet. 19 $\frac{3}{4}$ x10 $\frac{1}{2}$ x15".

- 30N21268—Receiver with Tubes. Shpg. wt. 80 lbs. .... **255.00**  
 30N21269—Matching 10" Speaker. Shpg. wt. 12 lbs. .... **14.00**  
 30N21270—Narrow Band FM Adaptor. Shpg. wt. 3 lbs. .... **16.95**

#### National NC-2-40D Communications Receiver

2. One of the finest, with every worthwhile engineering feature for flawless reception. Frequency coverage continuous from 490 KC to 30,000 KC in six bands. Combination main tuning knob and band selector switch moves 6 calibrated coil ranges into position below tuning capacitor and plugs them into circuit, assuring very short leads. Tuning control has 60:1 ratio gear drive, but dial spins rapidly for accurate tuning. Electrical bandspread for 80, 40, 20 and 10 meter Amateur bands. RF and IF circuits use polystyrene coil forms. Sensitivity high—image rejection better than 30 db at ten meters. RF coupling circuits assure full sensitivity to 30 MC. Six position crystal filter assures variable selectivity to meet all receiving conditions. High Frequency Oscillator design eliminates detuning effects of RF gain control and fluttering on strong signals.

Controls: Tuning and band selector knob, RF gain, on-off and standby switch, AVC-Manual-CW switch, BFO pitch control, audio gain, crystal filter, crystal phasing, noise limiter, tone control. Headphone jack on front panel, antenna input plus phono input jack and auxiliary power socket on rear panel. Superhet circuit uses 11 tubes plus rectifier, 1 RF, separate HF osc., 1st det., 2 IF's, 2nd det./limiter, AVC, BFO, AF amp./phase inverter, 6V6's which deliver 8 watts. For 110-120 or 220-240 V 50-60 cycles AC. Overall size: 19 $\frac{1}{4}$ x10 $\frac{3}{8}$ x15 $\frac{1}{2}$ ".

- 30N21261—Receiver with Tubes. Shpg. wt. 95 lbs. .... **225.00**  
 30N21262—Matching 10" Speaker. Shpg. wt. 15 lbs. .... **16.44**

#### National HRO-7 Communications Receiver

4. Ultra-modern HRO receiver with many new features! Wide-range adjustable selectivity with 6-position switch for crystal filter operation. Calibrated dial for complete coverage plus maximum bandspread on amateur bands. Plug-in coil sets for 1.7-30 MC—adjust for radio range, communications, marine, and broadcast-band frequencies by adding coil sets for 50-430 KC and 480-1700 KC. Automatic noise limiter clips noise on both positive and negative peaks, provides AVC for code reception. Two new miniature tubes, high frequency oscillator and voltage regulator for extreme oscillator stability. Accessory socket gives 6.3 volts AC, 150 volts DC regulated, and 240 volts DC unregulated for FM adaptor, crystal calibrator or HF converter.

Radio-Phono switch, 2 tuned RF, 2 IF stages, manual and AVC, calibrated "S" meter, micrometer-type dial with 20-to-1 precision gear drive, receiver disabling terminals for transmitting, 11-tube plus voltage regulator circuit assures high signal-to-noise ratio, image rejection, sensitivity. Requires power supply listed below. Gray enamel cabinet. 19 $\frac{1}{2}$  x 10 x 10".

- 30N21253—HRO-7 Receiver, tubes, coils. Wt. 60 lbs. .... **279.00**  
 30N21252—Matching MCR Speaker. Shpg. wt. 10 lbs. .... **12.00**  
 30N21265—Power Supply for Receiver above. Wt. 15 lbs. (Operates from 115-230 volts 50-60 cycles) .... **20.36**  
 30N21280—NBFM adaptor for Receiver above. Wt. 3 lbs. .... **16.95**  
 30N21278—Tilt Base for Receiver above. Wt. 5 lbs. .... **3.95**





HT-19 298.00



HT-17 49.50



HT-18 110.00

SM-17 6.50

## HALLCRAFTERS TRANSMITTERS for professional performance WORLD-FAMOUS FOR EXCEPTIONAL VOICE QUALITY, CLEAN CW KEYING

### New HT-19 Transmitter

125 watt output on all bands, completely self-contained. Band switching variable frequency oscillator and final RF amp operated with one control. Dial calibrated to all amateur bands from 3.5 to 29.7 MC. NBFM on all frequency bands. Five selections of FM deviation, calibrated by bands. Oscillator keyed for CW use. Low frequency drift, low FM distortion.

Built-in pre-amplifier for hi-impedance crystal or dynamic mikes. 3 built-in crystal sockets. Single meter with depress switch reads final amp grid current or plate current. Audio response flat from 100-5000 cps on FM. Terminals for addition of high level. Oscillator operates separately to spot incoming signals. Plate and filament circuits completely fused. With Tubes: 3-6BA6, 6L6, type 4-65A, VR105, VR150, 5Y3, 2-866A. 105-125 V. 50-60 cyc. AC. Front panel drilled for rack mounting. 20 x 10 1/4 x 18".  
30N21347—Shpg. wt. 85 lbs. ... **298.00**

### HT-17 10 Watt CW Transmitter

High quality, low-priced transmitter or exciter for a high power final amplifier. Designed as a companion to Hallcrafters S-38. For CW operation only, but with provision for addition of external modulator.

Full 10 watts output on the 80, 40, 20 and 10 meter bands. Pi-section matching network in plate circuit and adjustable link provides coupling to any antenna. Pilot lamp tuning indicator may be replaced with SM-17 plate MA meter. A 6V6GT crystal oscillator drives an 807 final amplifier, with 5Y3GT rectifier. 105-125 V. 50-60 cycle AC. With tubes and 40 meter coil set, less crystals. 12 7/8 x 7 3/8 x 8 5/8".

- 30N21076—Transmitter. Wt. 25 lbs. **49.50**
- 30N21077—SM-17 Meter. Wt. 2 lbs. ... **6.50**
- 30N210296—80 Meter Coil Set, 1 lb. ... **3.50**
- 30N210298—20 Meter Coil Set, 1 lb. ... **7.00**
- 30N210299—10 Meter Coil Set, 1 lb. ... **7.00**

### New HT-18 Master Oscillator

Newly designed directly calibrated variable master oscillator. Complete in one case—narrow band FM and calibrated five band VFO, with built-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 available on all ranges. FM deviation—1200 cps on all frequencies. Audio response flat from 100 to 5000 cps.

Provision for oscillator keying for break-in operation. Check switch for beating oscillator against incoming signal without putting transmitter on air. Built-in pre-amplifier for high impedance crystal or dynamic microphones. 3 crystal sockets for spot frequency operation. Front panel controls clearly marked. Tubes used: 3-6BA6, 6L6, VR105, VR150, 5Y3GT rectifier. 105-125 V. 50-60 cycle AC. With tubes, less crystals. 12 3/4 x 7 x 7 3/4".

- 30N21074—Shpg. wt. 25 lbs. ... **110.00**

## HALLCRAFTERS RECEIVERS at right for home and ham shack

### New S-56 FM-AM Chassis

1. Model S-56 offers same quality FM-AM reception you'd expect to find in most expensive consoles — all at a moderate price! Ten tubes plus rectifier circuit provides superb reception on standard broadcast band 540 to 1700 KC and on new FM band 88 to 108 MC.

Frequency response covers entire range of live FM programs. Exclusive automatic frequency control locks in FM signal—allows no drift. Speaker output 500 ohms. Large edge-lighted slide-rule dial with green calibration marks. With Tubes: 6AU6, 2-6BA6, 2-6SH7, 6H6, 6J6, 6SJ7, 2-6K6GT plus 5Y3GT rectifier. 105-125 V. 50-60 cycle. 12 1/2 x 8 1/2 x 13".

- 30N21089—Shpg. wt. 24 lbs. ... **110.00**

2. Model S-55. Same as chassis above, but housed in attractive cabinet finished in satin Gray. 18 1/2 x 8 3/8 x 13".

- 30N21088—Shpg. wt. 30 lbs. ... **129.50**

### Hallcrafters S-40A Receiver

3. Has many features formerly found only in high-priced receivers. Covers 540 KC to 43 MC in 4 bands. Illuminated dial. Separate electrical bandspread dial, inertia fly-wheel tuning for fast station selection. RF section uses permeability adjusted "micro-set" inductances.

Other features: Temperature compensated RF oscillator, beat frequency oscillator, separate RF and AF gain controls, 3 position tone control, noise limiter, pitch control, AVC or MVC and standby receive switch. With Tubes: 6SG7, 6SA7, 2-6SK7, 6SQ7, 6F6G, 6H6, 6J5GT and 80 rectifier. 105-125 V. 50-60 cycle AC. 12 1/2 x 9 x 11".

- 30N21094—Shpg. wt. 33 lbs. ... **99.50**

30N21087—Model S-52 same as above, but for 105-125 V. AC-DC. **99.50**

- 30N21085—Model S-40AU. 110, 130, 150, 220, 250 V. 25-60 cyc. **109.50**

### S-51 "Sea Farer" Receiver

4. Especially designed for use aboard ship or at coastal stations and airports. Latest type radio circuits assure sensitive reception on all bands. Frequency coverage from 140 KC to 12.5 MC. Accurately calibrated translucent green dial. Sensitivity under 10 microvolts at all frequencies. Temperature compensation in oscillator circuit. Built-in water-resistant PM speaker. Audio output 1 watt on AC-DC. Tubes used: 3-6SS7, 7A8, 2-7C6, 35L6, 6V6, 7A6 and 35Z5 rectifier. Black enamel case, 18 1/2 x 8 1/2 x 9 3/8". 110 V. AC-DC or 6, 12 or 32 V. DC with vibrapack below. With tubes, less vibrapacks.

- 30N21059—Shpg. wt. 31 lbs. ... **145.50**

VIBRAPACKS for above for 6, 12, 32 V. DC. With battery leads and plugs.

- 30N21060—6 V. pack. Wt. 12 lbs. ... **22.50**
- 30N21061—12 V. pack. Wt. 12 lbs. ... **22.50**
- 30N21062—32 V. pack. Wt. 12 lbs. ... **22.50**

### High Fidelity S-47 FM-AM Receiver

5. Designed for specialized installations, with numerous applications in homes, schools, offices and public institutions where a superior installation is needed. Complete frequency coverage in 3 bands from 535 KC to 108 MC. Large, illuminated slide-rule dial accurately calibrated for close tuning. Five push buttons each for FM and AM tuning. Fourteen tubes plus rectifier.

Push-pull output stage provides 12 watts audio. AM response flat from 30 to 7500 cps. FM flat from 30 to 15,000 cps. Separate bass and treble tone controls. Phono connection at rear of chassis. Automatic frequency control "locks in" receiver to FM station selected and assures minimum drift and maximum accuracy in tuning. Any speaker with impedance of 500 ohms can be used, such as R-42 shown on page 178. For 105-125 volt 50-60 cycle AC. 20" wide, 10 1/4" high, 18" deep.

- 30N21067—Shipping weight 70 lbs. ... **229.50**

Model S-47C. Same as above, but less cabinet for use in custom installations or as replacement chassis.

- 30N21068—Shipping weight 61 lbs. ... **209.50**

### High Fidelity SX-42 FM-AM Receiver

6. Top quality! Continuous frequency coverage 540 KC to 110 MC plus FM 27 to 110 MC. Essentially flat audio response, 60 to 15,000 cycles and undistorted output of 8 watts. Main tuning knob with precision vernier scales, bandspread dial calibrated for 3.5, 7, 14, 28 and 50 MC bands. Additional scale for logging.

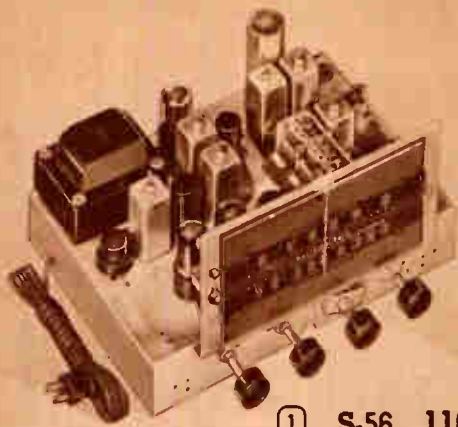
Split stator tuning on 3 higher frequency bands, all range BFO for CW, and dual IF system automatically switches from 455 KC to 10.7 MC. 6 position crystal filter and phase control. Output impedances of 500 or 5000 ohms. Phone jack on front panel, phone connection on rear of chassis. Temperature compensated oscillator. With tubes: 2-6AG5, 7F8, 6SK7, 6SG7, 2-6H6, 2-7H7, 6SL7, 2-6V6, 7A4, VR-150 and 5U4G rectifier. 105-125 V. 50-60 cycle AC. Size: 20 x 10 1/4 x 18". Less speaker and base.

- 30N21070—Shipping weight 65 lbs. ... **295.00**
- 30N21069—SX-42U for 110, 130, 150, 220, 250 V. 60 cyc. ... **308.00**

30N21072—R-42 Speaker, listed page 178. Wt. 30 lbs. ... **34.50**

- 30N21071—B-42 Adjustable Tilt Base. Wt. 5 lbs. ... **7.50**





① S-56 110.00



② S-55 129.50



③ S-40A 99.50



⑤ S-47 229.50



④ S-51 145.50

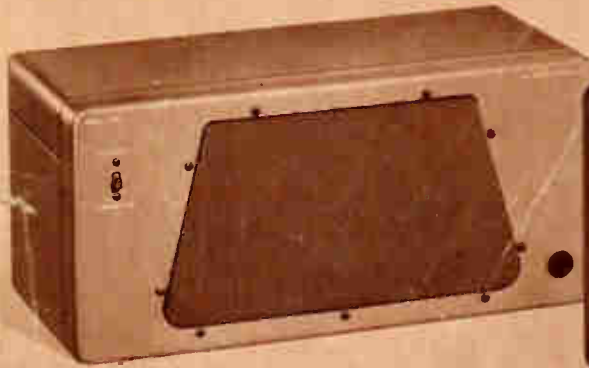


⑥ SX-42 295.00

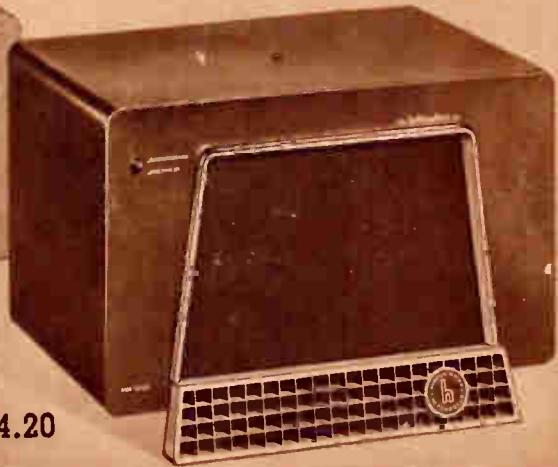
**HALLICRAFTERS RECEIVERS for round-the-world reception**

**IDEAL FOR AMATEURS WHO WANT HIGH QUALITY AT LOW PRICE**





**R-44 19.50**



**R-42 34.20**

**HALLICRAFTERS SPEAKERS FOR ANY RECEIVER ON THIS PAGE**

**Model R-44 Bass-Reflex Speaker**

Designed to provide the advantage of an oval speaker in a professional style cabinet. Large oval size plus ample baffling give excellent low frequency response. Two position switch on front panel for communications or high fidelity reception. Terminals on rear for 500 ohm line. Cabinet proportions and finish match most communications receivers, but was especially designed as a companion unit to the SX-43. Sturdy all metal cabinet is finished in rich satin gray. R-44 size: 18½ x 8½ x 9½ inches. Speaker size: 6 x 9 inches.

30N21066—Shipping weight 19 lbs.....**19.50**

**R-42 Bass-Reflex Speaker, Table Type**

First speaker of its size to offer the wide range fidelity of bass reflex, heretofore available only in large, space-consuming cabinet speakers. Its highly functional design may be used with any receiver having 500 ohm output terminals, but especially manufactured for use with the SX-42 and SX-62. Two position switch on front panel for transition from high fidelity to communications reception. Terminals on rear for 500-ohm line. Heavy duty 8-inch PM speaker. R-42 size: 12½" wide x 11¾" high x 17" deep.

30N21072—Shipping weight 30 lbs.....**34.50**

**HALLICRAFTERS RECEIVERS at right—all precision-engineered!**

**EVERY ONE PLANT-TESTED TO ASSURE FAULTLESS PERFORMANCE**

**New Hallicrafters S-58 FM-AM Receiver**

Concord is first with a new popular-priced Hallicrafters receiver that provides FM and AM reception and AC-DC operation in one compact, handsomely styled unit. Frequency range from 88 to 108 Megacycles for FM, 540 to 1600 kilocycles for AM. Easily readable, accurately calibrated slide-rule type dial. Particular band in use is separately illuminated. Built-in heavy duty speaker. Other features include phono connection at rear of chassis and continuously variable tone control.

Highly efficient circuit employs the latest type tubes: 12BE6 oscillator-mixer, 6BJ6 IF amplifier, 6BJ6 FM IF amplifier and AM detector, 12AL5 FM detector, 12SQ7 1st audio amplifier, 35L6 output audio amplifier and 35Z5 rectifier. Frequency response is 100 to 10,000 cycles plus or minus 9 db. AM sensitivity: 50 microvolts. FM sensitivity: 100 microvolts. Operates on 105-125 volts 50-60 cycle AC or 105-125 volts DC. Overall size: length 13¼", depth 6", height 5½". With tubes, instructions.

30N21082—Shipping weight 71 lbs.....**59.50**

**New Hallicrafters SX-62 SWL Receiver**

2. New version of the famous SX-42 with all of its exciting performance capabilities plus many new features for easier operation. Six bands cover entire frequency range from 540 KC to 110 MC—provides reception of standard broadcasts, domestic and foreign short wave broadcasts, airports, amateurs, marine and police calls plus FM, AM, CW between 27 to 110 MC. Essentially flat audio response, 60 to 15,000 cycles, and push-pull final audio stage output of over 8 watts with less than 5% distortion.

Controls arranged for ease in operating: band in use is separately illuminated, wide vision slide-rule dial is accurately calibrated and distinctively marked for broadcast reception and FM reception plus short wave stations and services located on dial. 500 KC crystal calibrator, pointer adjustment, single knob tuning, 4 position tone control. 20" x 10¼" x 18".

30N21079—Shipping weight 19 lbs.....**269.50**

30N21071—Adjustable Tilt Base. Shpg. wt. 5 lbs.....**7.50**

**Hallicrafters S-53 Receiver**

3. Designed for amateur rigs—provides latest engineering and radio circuit developments at low cost. Complete coverage within tuning range of 540 KC to 54.5 MC on five bands. Accurately calibrated illuminated, slide-rule dial. Full electrical bandwidth with separate control and scale for fine tuning. 2 MC IF frequency improves image ratio and eliminates repeat points within amateur bands.

Other features include: voltage stabilized oscillator, iron core IF transformers and noise limiter circuit. Antenna circuit uses either single wire or doublet antenna. Large, clear tone built-in PM dynamic speaker for 2½ watt audio output. Provision at rear for headphones and phono attachment. Efficient, modern superheterodyne circuit with following tubes: 6C4 oscillator, 6BA6 mixer, 6BA6 1st IF amplifier, 6BA6 2nd IF amplifier, 6H6 detector, AVC, ANL, 6SC7, BFO and 1st audio, 6K6GT audio output, 5Y3GT rectifier. For 105-125 volts 50-60 cycles AC. Black steel cabinet with chrome trim. Top opens on piano hinges. 12¾" W, 6¾" H, 7¾" D.

30N21063—Shpg. wt. 23 lbs.....**79.50**

**Hallicrafters S-38 Receiver**

4. Finest low-priced receiver ever offered! Ideal for home use; sensitive enough for all communications. Covers 4 bands: 540 to 1650 KC, 1.65 to 5 MC, 5 to 14.5 MC and 13.5 to 32 MC. 1.6 watts of audio output—plenty for all receiver requirements. Main dial calibrated in megacycles, short wave channels clearly marked. Electrical bandwidth dial permits separation of stations for communications or station logging.

Controls include: Noise Limiter, Band Switch, AM/CW, BFO Pitch, Vol., Speaker/Phono Switch and Standby Switch. Headphone jacks and antenna terminals in rear. Built-in PM dynamic speaker. Tubes include: 12SA7 Converter, 12SK7 IF Amplifier, 12SQ7 BFO-Automatic Noise Limiter, 12SQ7 2nd Detector AVC-1st Audio Amplifier, 35L6GT 2nd Audio Amplifier, and a 35Z5GT Rectifier. Operates on 105-120 volts, 40/60 cycles AC or 105-120 volts DC. Steel with Gray enamel finish. 12¾" x 7¼" x 8¾"

30N21081—Shipping wt. 14 lbs....**47.50**

Line cord for operation on 220 volts.

7N5245—Shipping weight 2 oz..... **1.41**

**Hallicrafters SX-43 Receiver**

5. Designed to give the discriminating amateur the performance of his dreams at a moderate, easy to afford price! Superb reception on all frequencies—coverage from 540 KC to 44MC, AM or CW, 44 to 55 MC, AM, wide-band FM or narrow-band FM and 88 to 108 MC wide-band FM.

Separate electrical bandwidth dial. Xial filter with phasing control, 4 degrees of selectivity, BFO pitch control, phono jack and switch, "S" meter, Noise limiter, Tone control and Receive/Standby switch. Tubes include: 6BA6 RF amplifier, 7F8 converter-oscillator, 6SG7 1st IF amplifier, 6SH7 2nd IF amplifier and 2nd converter, band 5 AM, 6SH7 3rd IF amplifier, 6H6 AM detector and noise limiter, 6AL5 FM detector, 6SQ7 1st AF amplifier, 6I5 beat frequency oscillator or 2nd converter oscillator, band 5, 6V6 audio output tube, 5Y3 rectifier. Temperature compensated. 105-125V 50/60 cyc. 18½" x 8¾" x 13".

30N21064—Shpg. wt. 45 lbs.....**179.50**

SX-43U—Universal model for 110, 130, 150, 220, 250 V, 25-60 cycle AC

30N21065—Shpg. wt. 45 lbs.....**189.50**