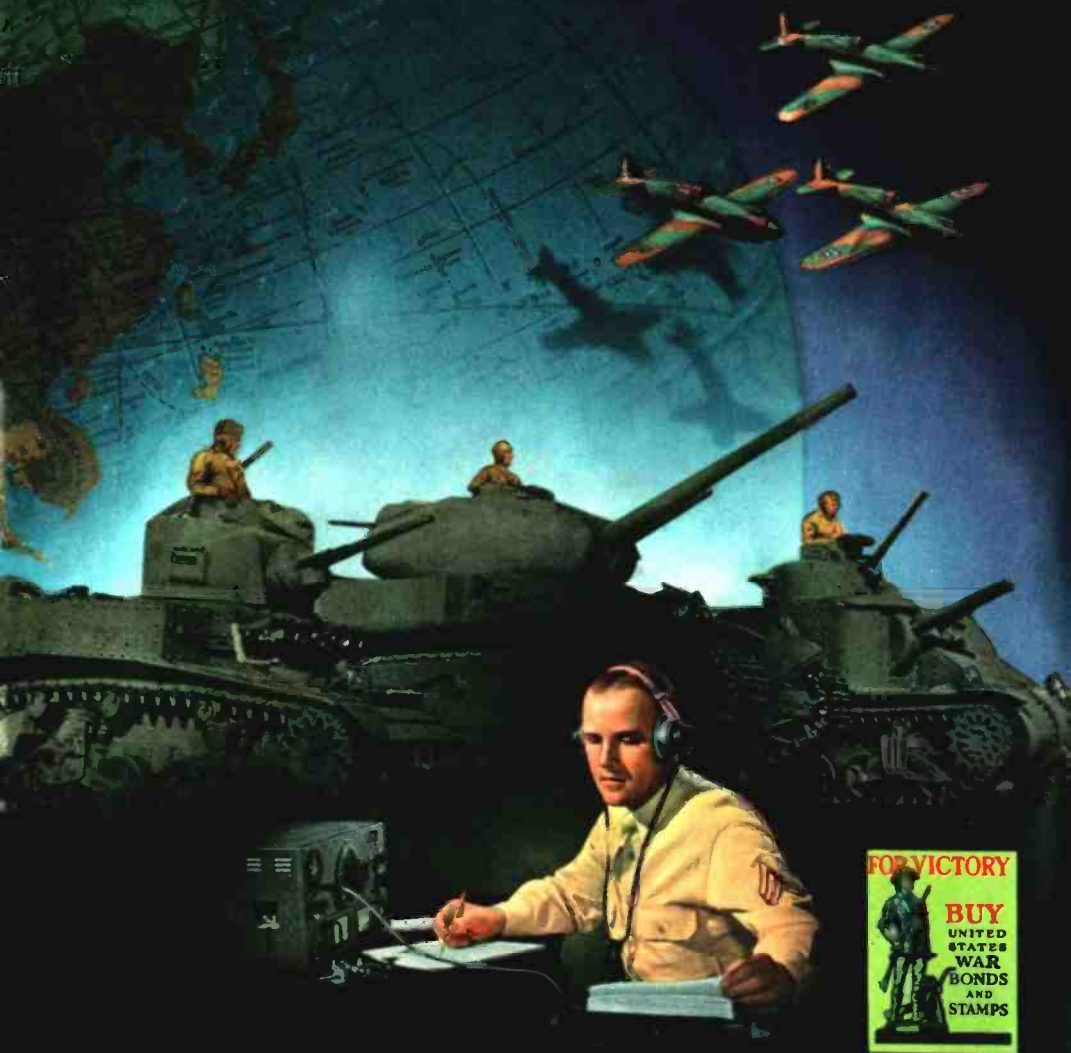


EVERYTHING IN RADIO AND ELECTRONICS



*Serving* THE ARMED FORCES ★ WAR INDUSTRY ★ THE HOME FRONT

1943

CATALOG No. 110  
See Index on  
Page 96

**ALLIED RADIO**

833 WEST JACKSON BLVD. ★ CHICAGO, ILLINOIS



## TWO FAMOUS LINES

RCA and Raytheon tubes are universally known as the supreme-quality lines which incorporate every worthwhile feature of design and construction. Here is a complete listing of dependable radio receiving tubes for every purpose. Included are glass, all-metal, glass octal, GT, loctal, and miniature types. Metal tubes available in RCA type only. Priority required.

## ABOUT PRIORITIES

ALLIED will continue to supply all replacement tubes released by W. T. R. You can get nearly all glass types in limited quantities without priorities. Because of their use in war equipment, however, metal tubes require high priorities. There are equivalent glass types for many metal tubes. See interchangeable Tube Chart on Page 3.

## SIX MONTH GUARANTEE

RCA and Raytheon tubes are guaranteed against electrical or mechanical defects for six months. We will replace any tube that does not give efficient performance. (This does not apply to burned-out or broken tubes.) ALLIED will maintain complete stocks—consistent with prevailing conditions. Wt., 1 tube—8 oz.; 3 tubes—1 lb.; 6 tubes—1 lb. 10 oz.

| Tube Type | RCA Cat. No. | Ray. Cat. No. | NET EACH | Tube Type | RCA Cat. No. | Ray. Cat. No. | NET EACH | Tube Type | RCA Cat. No. | Ray. Cat. No. | NET EACH |
|-----------|--------------|---------------|----------|-----------|--------------|---------------|----------|-----------|--------------|---------------|----------|
| 00A       | 6-000        |               | \$1.35   | 3Q5GT     | 6-070        |               | \$0.91   | 6J5GT     | 6-140        |               | \$0.50   |
| 01A       |              | 4-001         | .50      | 3Q5GT/G   |              | 4-070         | .91      | 6J5GT/G   |              | 4-140         | .50      |
| 0A4G      | 6-002        | 4-002         | 1.12     | 3S4       | 6-071        | 4-071         | .91      | 6J7       | 6-141        |               | .73      |
| 0Z4       | 6-003        | 4-003         | .91      | 5T4       | 6-073        |               | 1.12     | 6J7G      | 6-142        | 4-142         | .62      |
| 0Z4G      | 6-004        | 4-004         | .91      | 5U4G      | 6-074        | 4-074         | .56      | 6J7GT     | 6-143        | 4-143         | .62      |
| 1A3       | 6-006        |               | .73      | 5V4G      | 6-075        | 4-075         | .91      | 6J8G      | 6-144        | 4-144         | .91      |
| 1A4P      | 6-005        | 4-005         | .91      | 5W4       | 6-076        |               | .62      | 6K5G      | 6-145        | 4-145         | .62      |
| 1A4T      |              | 4-006         | .91      | 5W4GT     | 6-077        |               | .50      |           |              |               |          |
| 1A5GT/G   | 6-008        | 4-008         | .62      | 5X4G      | 6-078        | 4-078         | .62      | 6K6G      | 6-146        |               | .62      |
| 1A6       | 6-009        | 4-009         | .73      | 5Y3G      | 6-079        | 4-079         | .38      | 6K6GT     | 6-147        |               | .56      |
| 1A7G      | 6-010        | 4-010         | .91      | 5Y3GT/G   | 6-380        | 4-380         | .38      | 6K6GT/G   |              | 4-147         | .56      |
|           |              |               |          | 5Y4G      | 6-080        | 4-080         | .41      | 6K7       | 6-148        |               | .62      |
| 1A7GT     | 6-011        | 4-011         | .73      | 5Z3       | 6-081        | 4-081         | .62      | 6K7GT     | 6-149        | 4-149         | .62      |
| 1B4P      | 6-012        |               | .73      | 5Z4       | 6-082        |               | .73      | 6K8       | 6-150        | 4-150         | .56      |
| 1B7G      |              | 4-014         | .73      | 6A3       | 6-083        | 4-083         | 1.12     | 6K8G      | 6-152        | 4-152         | .73      |
| 1B7GT     | 6-015        |               | .73      | 6A4/LA    | 6-084        | 4-084         | .91      | 6K8GT     | 6-153        | 4-153         | .73      |
| 1C5G      | 6-016        |               | .91      | 6A6       | 6-086        | 4-086         | .91      | 6L5G      | 6-154        | 4-154         | .62      |
| 1C5GT/G   | 6-017        | 4-017         | .73      | 6A7       | 6-087        | 4-087         | .56      |           |              |               |          |
| 1C6       | 6-018        | 4-018         | .73      |           |              |               |          |           |              |               |          |
| 1C7G      | 6-019        | 4-019         | .73      | 6A7S      | 6-088        |               | 1.35     | 6L6       | 6-155        |               | 1.12     |
|           |              |               |          | 6AB       | 6-089        |               | .73      | 6L6G      | 6-156        | 4-156         | 1.12     |
| 1D5GP     | 6-020        |               | .73      | 6ABG      | 6-090        | 4-090         | .56      | 6L7       | 6-157        |               | .91      |
| 1D5GT     | 6-021        | 4-021         | .73      | 6ABGT     | 6-091        | 4-091         | .56      | 6L7G      | 6-158        | 4-158         | .91      |
| 1D8GT     | 6-022        | 4-022         | .91      | 6ABG 6N5  | 6-092        | 4-092         | .91      | 6N5       | 6-092        | 4-092         | .91      |
| 1E4G      |              | 4-024         | .73      | 6AB7      |              |               |          | 6N6       | 6-160        | 4-160         | 1.35     |
| 1E5GP     | 6-025        | 4-025         | .91      | 1853      | 6-093        |               | 1.12     | 6N7       | 6-161        |               | .91      |
| 1E7G      | 6-026        | 4-026         | 1.35     | 6AC5G     | 6-094        | 4-094         | .73      | 6N7GT/G   | 6-162        | 4-162         | .91      |
| 1F4       | 6-027        | 4-027         | .73      | 6AC5GT/G  | 6-095        | 4-095         | .62      | 6P5G      | 6-163        | 4-163         | .47      |
| 1F5G      | 6-028        | 4-028         | .73      |           |              |               |          |           |              |               |          |
|           |              |               |          | 6AC7      |              |               |          | 6P5GT/G   | 6-164        | 4-164         | .44      |
| 1F6       | 6-029        | 4-029         | .91      | 1852      | 6-096        |               | 1.35     | 6P7G      | 6-165        | 4-165         | 1.35     |
| 1F7G      | 6-030        | 4-030         | .91      | 6AD6G     | 6-097        | 4-097         | .91      | 6Q7       | 6-166        |               | .73      |
| 1G4GT/G   | 6-032        | 4-032         | .73      | 6AD7G     | 6-098        | 4-098         | .91      | 6Q7G      | 6-167        | 4-167         | .50      |
| 1G5G      | 6-033        | 4-033         | .73      | 6AE5GT/G  |              | 4-100         | .73      | 6Q7GT     | 6-168        | 4-168         | .50      |
| 1G6GT/G   | 6-035        | 4-035         | .73      | 6AE6G     | 6-101        | 4-101         | .73      | 6R7       | 6-169        |               | .91      |
| 1H4G      | 6-036        | 4-036         | .56      | 6AF5G     | 6-102        | 4-102         | .73      | 6R7G      | 6-170        | 4-170         | .62      |
| 1H5G      |              | 4-037         | .73      | 6AF6G     | 6-104        |               | .91      | 6R7GT     | 6-171        | 4-171         | .50      |
| 1H5GT/G   | 6-038        | 4-038         | .62      | 6AG5      | 6-103        |               | 1.35     | 6S7       | 6-172        |               | .91      |
| 1H6G      | 6-039        | 4-039         | .73      | 6AG7      | 6-105        |               | 1.35     | 6S7G      | 6-173        | 4-173         | .91      |
|           |              |               |          | 6AL6G     |              | 4-106         | 4.00     | 6SA7      | 6-174        |               | .56      |
| 1J5G      | 6-040        | 4-040         | 1.12     |           |              |               |          |           |              |               |          |
| 1J6G      | 6-041        | 4-041         | .73      | 6B4G      | 6-107        | 4-107         | 1.12     | 6SA7GT    | 6-175        | 4-175         | .62      |
| 1L4       | 6-042        |               | .91      | 6B5       | 6-108        | 4-108         | 1.12     | 6SA7GT/G  |              | 4-175         | .62      |
| 1LA4      | 6-042        | 4-042         | 1.35     | 6B5G      | 6-109        | 4-109         | .62      | 6SC7      | 6-176        |               | .73      |
| 1LA6      | 6-043        | 4-043         | 1.35     | 6B7       | 6-110        | 4-110         | .73      | 6SC7GT    | 6-177        |               | .73      |
| 1LB4      | 6-044        | 4-044         | 1.35     | 6B7S      | 6-111        |               | 1.35     | 6SD7GT    |              | 4-177         | .73      |
| 1LC6      | 6-024        |               | 1.35     | 6B8       | 6-112        | 4-112         | 1.12     | 6SF5      | 6-178        |               | .56      |
| 1LH4      | 6-045        | 4-045         | 1.35     | 6B8G      | 6-113        | 4-113         | .73      | 6SF5GT    | 6-179        | 4-179         | .56      |
| 1LHNS     | 6-046        | 4-046         | 1.35     | 6C4       | 6-114        |               | 1.12     | 6SF7      | 6-180        |               | .73      |
| 1NSGT/G   | 6-048        | 4-048         | .73      | 6C5       | 6-114        |               | .62      | 6SG7      | 6-181        |               | .73      |
| 1N6G      | 6-049        | 4-049         | .73      | 6C5G      | 6-115        |               | .62      | 6S7GT     | 6-182        |               | .62      |
|           |              |               |          | 6C5GT     | 6-116        |               | .56      | 6S7GT/G   | 6-183        | 4-183         | .62      |
| 1P5GT     | 6-050        | 4-050         | .91      |           |              |               |          |           |              |               |          |
| 1Q5G      | 6-051        |               | .91      | 6C6       | 6-117        | 4-117         | .56      | 6SK7      | 6-184        |               | .56      |
| 1Q5GT     | 6-052        |               | .91      | 6C7       | 6-118        |               | 1.35     | 6SK7GT    | 6-185        |               | .62      |
| 1Q5GT/G   |              | 4-052         | .91      | 6C8G      | 6-119        |               | .91      | 6SK7GT/G  |              | 4-185         | .62      |
| 1S4       | 6-053        | 4-053         | .91      | 6D6       | 6-120        | 4-120         | .56      | 6SL7GT    | 6-186        |               | .91      |
| 1S5       | 6-054        | 4-054         | .91      | 6D7       | 6-121        |               | 1.35     | 6SN7GT    | 6-187        |               | .73      |
| 1T4       | 6-055        | 4-055         | .91      | 6D8G      | 6-122        | 4-122         | .91      | 6SQ7      | 6-188        |               | .56      |
| 1T5GT     | 6-056        | 4-056         | .91      | 6E5       | 6-123        | 4-123         | .62      | 6SQ7GT/G  | 6-188        |               | .62      |
| 1V        | 6-057        | 4-057         | .91      | 6E6       | 6-124        |               | 1.12     | 6SR7      | 6-189        |               | .62      |
|           | 6-058        | 4-058         | .56      | 6F5       | 6-126        |               | .62      | 6SS7      | 6-190        |               | .56      |
| 2A3       | 6-059        | 4-059         | 1.12     | 6F5G      | 6-127        | 4-127         | .62      |           |              |               |          |
| 2A4G      | 6-060        | 4-060         | 1.65     | 6F5GT     | 6-128        | 4-128         | .56      | 6T7G      | 6-192        |               | .73      |
| 2A5       | 6-061        | 4-061         | .56      | 6F6       | 6-129        |               | .62      | 6T7G/6Q6G |              | 4-192         | .73      |
| 2A6       | 6-062        | 4-062         | .56      | 6F6G      | 6-130        | 4-130         | .50      | 6U5/GG5   | 6-193        | 4-193         | .73      |
| 2A7       | 6-063        | 4-063         | .62      | 6F7       | 6-131        | 4-131         | .91      | 6U6GT     |              | 4-194         | .73      |
| 2B7       | 6-064        | 4-064         | .73      | 6F8G      | 6-132        | 4-132         | .73      | 6U7G      | 6-195        | 4-195         | .56      |
| 2E5       |              | 4-065         | .73      | 6G5/6U5   | 6-133        | 4-133         | .73      | 6V6       | 6-196        |               | 1.12     |
| 2V3G      | 6-811        |               | 1.65     | 6G6G      | 6-133        | 4-133         | .73      | 6V6GT/G   | 6-198        | 4-198         | .62      |
| 2X2/879   | 6-810        |               | 1.35     | 6H4GT     | 6-134        | 4-134         | 1.12     | 6V7G      | 6-199        | 4-199         | .73      |
| 3A4       | 6-066        |               | .91      | 6H6       | 6-135        |               | .62      | 6W5G      | 6-200        | 4-200         | 1.35     |
| 3A4G      | 6-067        |               | .91      | 6H6GT/G   | 6-137        |               | .62      | 6W7G      | 6-201        | 4-201         | .91      |
| 3ABGT     | 6-068        | 4-068         | 1.35     | 6J5       | 6-138        |               | .50      | 6X5       | 6-202        |               | .91      |
| 3Q4       | 6-069        |               | .91      | 6J5G      | 6-139        |               | .56      | 6X5GT/G   | 6-204        | 4-204         | .56      |

—Metal Tube. †—Miniature. ‡—Loctal. G—Glass Octal. GT—Small Glass Octal. GT/G—Small Glass Octal—Replaces GT or G





# GE ELECTRONIC TUBES FOR INDUSTRIAL APPLICATIONS



Tubes for Industrial Applications. There is a job in every plant that electronic tubes can do better. **37-155**, G-E circular No. 8850, "Electronic Tubes for Industry," will be sent FREE on request.

## PHANOTRONS

Gaseous-discharge-rectifier tubes. Used in automatic and self-regulating battery chargers which operate from 120 volts or higher.

| G-E Type | Stock No. | Avg. Amps. | Peak Amps. | NET EACH |
|----------|-----------|------------|------------|----------|
| PG-32    | 7-000     | 2.5        | 15         | \$11.00  |
| PG-166   | 7-001     | 30.0       | 150        | 98.00    |

## THYRATRONS

Grid-controlled gaseous-discharge-rectifier tubes. Thyatron motor control is the newest answer to the problem of wide-range, stepless speed control for DC motor operation from AC lines. Popular types are listed below.

| G-E Type | Stock No. | Avg. Amps. | Peak Amps. | NET EACH |
|----------|-----------|------------|------------|----------|
| 2051     | 7-062     | 0.75       | 0.375      | \$2.50   |
| 2052     | 7-063     | 0.1        | 0.500      | 3.00     |
| PG-97    | 7-084     | 0.5        | 2.0        | 1.50     |
| PG-17    | 7-005     | 0.5        | 2.0        | 9.50     |
| PG-21A   | 7-006     | 2.5        | 10.0       | 17.00    |
| PG-31    | 7-007     | 2.5        | 15.0       | 16.25    |
| PG-37    | 7-008     | 2.5        | 15.0       | 15.00    |
| PG-95    | 7-009     | 2.5        | 15.0       | 19.00    |
| PG-105   | 7-010     | 6.4        | 40.0       | 38.00    |
| PG-112   | 7-011     | 6.4        | 40.0       | 38.00    |
| PG-41    | 7-012     | 12.5       | 75.0       | 92.00    |
| GL-414   | 7-013     | 12.5       | 100.0      | 92.00    |

## PLIOTRONS

Grid-controlled high-vacuum tubes. For special electronic control purposes. 7-014 (PJ-7) has mu of 30; 7-015 (PJ-8) has mu of 8.5.

| G-E Type | Stock No. | Max. Volts. | Diss. Wats. | NET EACH |
|----------|-----------|-------------|-------------|----------|
| PJ-7     | 7-014     | 350         | 10          | \$5.50   |
| PJ-8     | 7-015     | 350         | 10          | 5.50     |

## POOL-CATHODE IGNITRONS

High peak-current type for welding control.

| G-E Type | Stock No. | Max. Amps. | NET EACH |
|----------|-----------|------------|----------|
| GL-415   | 7-016     | 22.4       | \$33.00  |
| PG-211   | 7-017     | 56.0       | 55.00    |
| PG-215A  | 7-018     | 140.0      | 110.00   |
| PG-258A  | 7-019     | 355.0      | 250.00   |

## PHOTOTUBES

Light sensitive cells for P. E. equipment.

| G-E Type | Stock No. | Kind   | Anode Volts | NET EACH |
|----------|-----------|--------|-------------|----------|
| PJ-22    | 7-020     | Gas    | 200         | \$2.60   |
| PJ-23    | 7-021     | Gas    | 90          | 2.60     |
| PJ-401   | 7-022     | Gas    | 90          | 6.75     |
| GL-441   | 7-023     | Gas    | 200         | 7.50     |
| GL-453A  | 7-024     | Gas    | 90          | 7.50     |
| GL-929   | 7-025     | Vacuum | 250         | 3.00     |
| GL-930   | 7-026     | Gas    | 90          | 2.00     |

## POWER AND SPECIAL PURPOSE TUBES

| G-E Type | Stock No. | Tube Type | Cath. Volts | NET EACH |
|----------|-----------|-----------|-------------|----------|
| 804      | 7-050     | Pentode   | 7.5         | \$15.00  |
| 808      | 7-051     | Triode    | 7.5         | 7.75     |
| 816      | 7-052     | Rectifier | 2.5         | 3.00     |
| 825      | 7-053     | P.P. Amp. | 6.3         | 3.50     |
| 826      | 7-054     | Rectifier | 2.5         | 19.00    |
| 827R     | 7-055     | Beam      | 7.5         | 135.00   |
| 828      | 7-056     | Beam      | 10.0        | 17.50    |
| 830B     | 7-057     | Triode    | 10.0        | 10.00    |
| 832      | 7-058     | P.P. Beam | 6.3         | 17.00    |
| 840      | 7-059     | Pentode   | 2.0         | 6.00     |
| 841      | 7-060     | Triode    | 2.5         | 3.25     |
| 842      | 7-061     | Triode    | 7.5         | 3.25     |
| 850      | 7-062     | Tetrode   | 10.0        | 37.50    |

|     |       |           |      |       |
|-----|-------|-----------|------|-------|
| 852 | 7-063 | Triode    | 10.0 | 16.40 |
| 854 | 7-064 | Triode    | 1.1  | 1.00  |
| 868 | 7-065 | Phototube | 3.70 | 7.00  |
| 871 | 7-066 | Rectifier | 2.5  | 3.00  |
| 878 | 7-067 | Rectifier | 11.0 | 7.00  |
| 884 | 7-068 | Triode    | 6.3  | 2.00  |
| 885 | 7-069 | Triode    | 2.5  | 2.00  |
| 901 | 7-070 | Rect. Ray | 3.00 | 9.00  |
| 902 | 7-071 | Cath. Ray | 6.3  | 4.00  |
| 913 | 7-072 | Cath. Ray | 6.3  | 4.00  |
| 917 | 7-073 | Phototube | 4.75 | 8.15  |
| 918 | 7-074 | Phototube | 4.75 | 8.15  |
| 919 | 7-075 | Phototube | 4.75 | 8.15  |
| 920 | 7-076 | Phototube | 5.25 | 8.15  |
| 921 | 7-077 | Phototube | 2.00 | 2.00  |

|     |       |           |       |       |
|-----|-------|-----------|-------|-------|
| 922 | 7-078 | Phototube | 2.00  | 2.00  |
| 924 | 7-079 | Phototube | 2.00  | 2.00  |
| 925 | 7-080 | Phototube | 2.00  | 2.00  |
| 926 | 7-081 | Phototube | 2.00  | 2.00  |
| 927 | 7-082 | Phototube | 3.70  | 7.00  |
| 928 | 7-083 | Phototube | 2.00  | 2.00  |
| 931 | 7-084 | Phototube | 15.00 | 15.00 |
| 944 | 7-085 | Pentode   | 6.3   | 3.00  |
| 955 | 7-086 | Triode    | 6.3   | 3.00  |
| 957 | 7-087 | Pentode   | 1.25  | 3.00  |
| 958 | 7-088 | Triode    | 1.25  | 3.00  |
| 959 | 7-089 | Triode    | 1.25  | 3.00  |

|      |       |           |      |       |
|------|-------|-----------|------|-------|
| 991  | 7-091 | V. Reg.   | 7.5  | 2.75  |
| 1602 | 7-092 | Triode    | 7.5  | 4.75  |
| 1603 | 7-093 | Det.-Amp. | 6.3  | 4.75  |
| 1604 | 7-094 | Beam      | 2.5  | 4.75  |
| 1609 | 7-095 | Pentode   | 1.1  | 6.00  |
| 1610 | 7-096 | Pentode   | 2.5  | 2.00  |
| 1612 | 7-097 | Triode    | 6.3  | 3.25  |
| 1621 | 7-098 | Triode    | 6.3  | 3.25  |
| 1622 | 7-099 | Beam      | 6.3  | 3.25  |
| 1624 | 7-100 | Beam      | 2.5  | 3.25  |
| 1625 | 7-101 | Beam      | 12.6 | 3.25  |
| 1627 | 7-102 | Triode    | 12.6 | 3.25  |
| 1628 | 7-103 | Triode    | 5.0  | 13.50 |

|      |       |           |      |       |
|------|-------|-----------|------|-------|
| 1629 | 7-104 | El. Ray   | 12.6 | 1.25  |
| 1631 | 7-105 | Beam      | 12.6 | 2.00  |
| 1632 | 7-106 | Beam      | 12.6 | 2.00  |
| 1633 | 7-107 | Triode    | 12.6 | 3.50  |
| 1634 | 7-108 | Triode    | 12.6 | 3.50  |
| 2000 | 7-109 | Rectifier | 2.2  | 6.00  |
| 8000 | 7-110 | Triode    | 10.0 | 13.50 |
| 8001 | 7-111 | Beam      | 2.0  | 2.50  |
| 8002 | 7-112 | Triode    | 10.0 | 12.00 |
| 8003 | 7-113 | Triode    | 10.0 | 7.00  |
| 8004 | 7-114 | Triode    | 6.3  | 2.50  |
| 9002 | 7-115 | Triode    | 6.3  | 2.50  |
| 9003 | 7-116 | Pentode   | 6.3  | 2.50  |

Priorities. G-E Electronic tubes are available only on orders with priority rating received by us. The time your order is required by us. **37-156**, G-E circular No. 6921, "Transmitting Tubes," FREE.



## TRANSMITTING TUBES

| G-E Type | Stock No. | Tube Type    | Max. Diss. | NET EACH |
|----------|-----------|--------------|------------|----------|
| 203A     | 7-120     | Triode       | 100 W.     | \$12.00  |
| 211      | 7-121     | Triode       | 100 W.     | 8.75     |
| 212      | 7-122     | Triode       | 100 W.     | 12.00    |
| 213      | 7-123     | Triode       | 100 W.     | 15.00    |
| 214      | 7-124     | Triode       | 35 W.      | 10.00    |
| 801      | 7-125     | Triode       | 20 W.      | 3.45     |
| 802      | 7-126     | Pentode      | 13 W.      | 3.50     |
| 803      | 7-127     | Pentode      | 125 W.     | 28.50    |
| 805      | 7-128     | Triode       | 125 W.     | 25.00    |
| 806      | 7-129     | Triode       | 1000 W.    | 35.00    |
| 807      | 7-130     | Tetrode      | 30 W.      | 3.50     |
| 809      | 7-131     | Triode       | 30 W.      | 2.50     |
| 810      | 7-132     | Triode       | 150 W.     | 1.50     |
| 811      | 7-133     | Triode       | 55 W.      | 3.50     |
| 812      | 7-134     | Triode       | 55 W.      | 3.50     |
| 813      | 7-135     | Tetrode      | 100 W.     | 22.00    |
| 814      | 7-136     | Tetrode      | 65 W.      | 3.50     |
| 815      | 7-137     | Triode       | 25 W.      | 4.50     |
| 819      | 7-138     | Dbl. Tetrode | 40 W.      | 19.50    |
| 835A     | 7-139     | Triode       | 50 W.      | 12.00    |
| 834      | 7-140     | Triode       | 50 W.      | 12.00    |
| 835      | 7-141     | Triode       | 100 W.     | 15.00    |
| 836      | 7-142     | Triode       | 100 W.     | 11.50    |
| 837      | 7-143     | Pentode      | 12 W.      | 1.50     |
| 838      | 7-144     | Triode       | 10 W.      | 13.25    |
| 843      | 7-145     | Triode       | 15 W.      | 12.50    |
| 845      | 7-146     | Triode       | 15 W.      | 12.50    |
| 846      | 7-147     | Tetrode      | 100 W.     | 12.00    |
| 865      | 7-148     | Triode       | 15 W.      | 12.75    |
| 866A-866 | 7-149     | Rectifier    |            | 1.50     |
| 872      | 7-150     | Rectifier    |            | 9.00     |
| 872A     | 7-151     | Rectifier    |            | 11.00    |
| 1613     | 7-152     | Pentode      | 10 W.      | 3.75     |
| 1614     | 7-153     | Tetrode      | 21 W.      | 5.75     |
| 1616     | 7-154     | Diode        |            | 5.75     |
| 1619     | 7-155     | Tetrode      | 15 W.      | 4.75     |
| 1623     | 7-156     | Triode       | 30 W.      | 4.75     |
| 1628     | 7-157     | Triode       | 40 W.      | 32.00    |

## RESISTOR TYPE BALLASTS

| G-E Type | Stock No. | Max. Volts. | Max. Amps. | NET EACH |
|----------|-----------|-------------|------------|----------|
| B-50     | 7-027     | 8           | 0.275      | \$3.50   |
| FB-25    | 7-028     | 16          | 1.16       | 3.00     |
| B-40     | 7-029     | 18          | 2.45       | 3.50     |
| B-46     | 7-030     | 18          | 3.25       | 4.00     |
| B-6      | 7-031     | 21          | 1.01       | 4.50     |
| B-4      | 7-032     | 125         | 1.36       | 25.00    |

## VACUUM SWITCHES

| G-E Type | Stock No. | Type | Amp. | NET EACH |
|----------|-----------|------|------|----------|
| FA-6     | 7-036     | SPDT | 10   | \$7.25   |
| FA-15    | 7-037     | SPDT | 8    | 6.25     |

## COLD-CATHODE GLOW TUBES

| G-E Type | Stock No. | Max. DC V. | Max. Amp. | NET EACH |
|----------|-----------|------------|-----------|----------|
| 75-10    | 7-033     | 75         | 3         | \$1.25   |
| 105-30   | 7-034     | 105        | 3         | 1.25     |
| 150-30   | 7-035     | 150        | 30        | 1.25     |

## "KNIGHT" BALLAST RESISTORS



NET EACH

39¢

LOTS OF 15 ASSORTED EACH

35¢

Exact duplicate, top-notch quality ballast tubes for replacement in AC-DC sets. Will be supplied either in metal shells or glass envelopes. Identical to originals in electrical characteristics and base connections. Require no rewiring of circuit—simply remove old defective ballast tube and replace with corresponding type Knight ballast. The ballast resistor will protect the tubes in your radio set against premature burn-out resulting from higher than normal AC-DC operating line voltage. Types are listed numerically. Single tube—8 oz.; additional tubes, 4 oz. each.

| No.   | Type  | No.   | Type  | No.   | Type   |
|-------|-------|-------|-------|-------|--------|
| 9-800 | K21B  | 9-813 | L49B  | 9-826 | K70B   |
| 9-801 | K36B  | 9-814 | L49C  | 9-827 | K74R   |
| 9-802 | K42B  | 9-815 | L49CJ | 9-828 | K74C   |
| 9-803 | K42C  | 9-816 | L49D  | 9-829 | K80B   |
| 9-804 | K42D  | 9-817 | M40B  | 9-830 | K80C   |
| 9-805 | L42B  | 9-818 | K55B  | 9-831 | K92B   |
| 9-806 | L42C  | 9-819 | K55C  | 9-832 | 100-70 |
| 9-807 | M42B  | 9-820 | K55CP | 9-833 | 100-7  |
| 9-808 | K240B | 9-821 | L55B  | 9-834 | 105A   |
| 9-809 | K49B  | 9-822 | L55C  | 9-835 | 165RA  |
| 9-810 | K249C | 9-823 | L55S1 | 9-836 | 200R   |
| 9-811 | K49C  | 9-824 | L55S2 | 9-837 | 300R   |
| 9-812 | K49D  | 9-825 | M55B  | 9-838 | 320RA  |

## JFD ADJUSTABLE BALLAST KIT

Handy kit of adjustable AC-DC ballasts designed to replace more than 2700 different types of ballast tubes now in use. Kit contains 2 type "A," 2 type "B," and 1 type "C" tubes and tools. Includes 30-page Ballast and Ballast Book giving replacement and technical data. 2 lbs.

9-875, Ballast Tube Kit. NET... \$3.23

## REPLACEMENT TUBES FOR ABOVE

Replacement tubes for above kit. Wt. 8 oz. each.

9-885, Ballast A..... NET EACH 65¢

9-886, Ballast B.....

9-887, Ballast C.....



## RAYTHEON HEARING-AID TUBES

Miniature tubes, 1/4" high by .550" dia. Fil. Voltage, 1.25 at .033 amps. Metal Shell Base, 5 prong Fits Amphenol socket below. \*Standard Order. Removable Base. Leads from envelope may be wired into circuit.

| Type   | No.   | Type   | No.   | Type   | No.   | EACH |
|--------|-------|--------|-------|--------|-------|------|
| CK501T | 4-585 | CK501T | 4-588 | CK501X | 4-592 | 5.00 |
| CK502T | 4-586 | CK501X | 4-590 | CK504X | 4-593 | 3.00 |
| CK503T | 4-587 | CK502X | 4-591 | CK505X | 4-594 | 3.00 |
| CK504T | 4-588 |        |       |        |       |      |

40-123, Socket for 4 series only. Fits 1/4" hole. NET..... 10¢





ALLIED'S stocks of power tubes are maintained in conformance with WPB regulations. Please extend highest priority with order.

## RECTIFIERS

| RCA Type | Stock No. | Tube Type | Peak Inv. V. | NET     |
|----------|-----------|-----------|--------------|---------|
| 816      | 6-800     | Mercury   | 5000         | \$ 1.00 |
| 868/866A | 6-801     | Mercury   | 10000        | 1.50    |
| 217A     | 6-802     | Vacuum    | 3500         | 2.00    |
| 276C     | 6-803     | Vacuum    | 7500         | 20.00   |
| 836      | 6-804     | Vacuum    | 5000         | 11.50   |
| 869A     | 6-805     | Mercury   | 20000        | 12.50   |
| 872      | 6-807     | Mercury   | 7500         | 9.00    |
| 878A     | 6-808     | Mercury   | 10000        | 11.00   |
| 872      | 6-809     | Vacuum    | 20000        | 11.00   |
| 2X2/879  | 6-810     | Vacuum    | 12500        | 1.35    |
| 2V3G     | 6-811     | Vacuum    | 16500        | 1.65    |
| 1616     | 6-812     | Vacuum    | 5500         | 5.75    |

## GAS TRIODES-TETRODES

| Type | Stock No. | Kind              | Use         | NET    |
|------|-----------|-------------------|-------------|--------|
| 884  | 6-813     | Triode            | Relay/Sweep | \$2.00 |
| 886  | 6-814     | Triode            | Relay/Sweep | 2.00   |
| 2050 | 6-815     | Tetrode           | Relay       | 3.00   |
| 2051 | 6-816     | Tetrode           | Relay       | 3.50   |
| 874  | 6-817     | Voltage Regulator |             | 1.50   |
| 991  | 6-818     | Voltage Regulator |             | .90    |

## UHF AND ACORN TUBES

| Type | Stock No. | Kind    | Fl. V. | NET    |
|------|-----------|---------|--------|--------|
| 954  | 6-819     | Pentode | 6.3    | \$5.00 |
| 965  | 6-820     | Triode  | 6.3    | 3.00   |
| 956  | 6-821     | Triode  | 6.3    | 3.00   |
| 967  | 6-822     | Triode  | 1.25   | 3.00   |
| 968  | 6-823     | Triode  | 1.25   | 3.00   |
| 969  | 6-824     | Pentode | 1.25   | 5.00   |
| 9001 | 6-825     | Pentode | 6.3    | 2.50   |
| 9002 | 6-826     | Triode  | 6.3    | 2.00   |
| 9003 | 6-827     | Pentode | 6.3    | 2.50   |

## CATHODE RAY TUBES

| Type        | Stock No. | Screen | NET     |
|-------------|-----------|--------|---------|
| 913         | 6-828     | 2-Inch | \$ 4.00 |
| 902         | 6-829     | 2-Inch | 7.50    |
| 3AP1/906P1  | 6-830     | 3-Inch | 13.50   |
| 5BP1/1802P1 | 6-831     | 5-Inch | 24.75   |

## HYTRON POWER TUBES

TYPE HY-30Z. High-efficiency zero-bias triode with low-loss lava insulation. Has graphite anode, ceramic Alsidmag base. For RF Power Amplifier or Frequency Multiplier stages, or Class "B" Modulator. Plate 850 Volts. Filament, 6.3 Volts at 2.25 Amps. Plate diss., 30 Watts. **\$2.75**  
**7-600. NET.**

| Mfr's Type | Stock No. | Plate Diss. | NET    |
|------------|-----------|-------------|--------|
| HY-40      | 7-602     | 40 W.       | \$3.75 |
| HY-40Z     | 7-603     | 40 W.       | 3.75   |
| HY-65      | 7-613     | 15 W.       | 3.00   |
| HY-65Z     | 7-607     | 40 W.       | 3.95   |
| HY-75      | 7-608     | 15 W.       | 3.50   |
| HY-61/807  | 7-606     | 25 W.       | 3.50   |
| HY-31Z     | 7-601     | 30 W.       | 3.50   |
| HY-114B    | 7-609     | 3.5 W.      | 2.25   |
| 955        | 7-616     | 2.0 W.      | 2.25   |
|            |           | Acorn       | 3.00   |

## CETRON PHOTOTUBES

These scientifically engineered phototubes assure high efficiency, thorough dependability and long life. For use in photo-electric equipment where laboratory and industrial applications require outstanding performance. Ideal for sound-on-film equipment. Their extreme sensitivity permits lower gas content, resulting in higher ionization point for more effective operation. Use as alternatives in photo-tube applications. See listing below for equivalent types.

| Stock No. | Mfr's Type | Eqv. Type | Kind   | NET    |
|-----------|------------|-----------|--------|--------|
| 8-200     | CE-1-E     | 868       | Gas    | \$3.00 |
| 8-201     | CE-1-D     | 918       | Gas    | 3.70   |
| 8-202     | CE-11-V    | 917       | Vacuum | 5.75   |
| 8-203     | CE-11      | 920       | Gas    | 5.75   |
| 8-204     | CE-22      | 924       | Gas    | 2.50   |
| 8-205     | CE-23      | 923       | Gas    | 2.50   |
| 8-206     | CE-25      | 927       | Gas    | 3.50   |
| 8-207     | CE-28      | 929       | Gas    | 3.00   |
| 8-208     | CE-31-V    | 919       | Vacuum | 5.75   |

## POWER TUBES

| RCA Type | Stock No. | Tube Type | Plate Diss. | NET     |
|----------|-----------|-----------|-------------|---------|
| 203A     | 6-832     | Triode    | 100 W.      | \$10.00 |
| 211      | 6-833     | Triode    | 100 W.      | 10.00   |
| 800      | 6-834     | Triode    | 35 W.       | 10.00   |
| 801A     | 6-835     | Triode    | 20 W.       | 3.15    |
| 802      | 6-836     | Pentode   | 12 W.       | 3.50    |
| 803      | 6-837     | Triode    | 15 W.       | 25.00   |
| 804      | 6-838     | Pentode   | 50 W.       | 13.50   |
| 805      | 6-839     | Triode    | 125 W.      | 13.50   |
| 806      | 6-840     | Triode    | 225 W.      | 4.50    |
| 807      | 6-841     | Beam      | 30 W.       | 3.50    |
| 808      | 6-842     | Triode    | 50 W.       | 7.75    |
| 809      | 6-843     | Triode    | 30 W.       | 2.50    |
| 810      | 6-844     | Triode    | 150 W.      | 13.50   |
| 811      | 6-845     | Triode    | 35 W.       | 3.50    |
| 812      | 6-846     | Triode    | 55 W.       | 3.50    |
| 813      | 6-847     | Beam      | 100 W.      | 22.00   |
| 814      | 6-848     | Beam      | 65 W.       | 17.50   |
| 815      | 6-849     | Beam      | 75 W.       | 4.50    |
| 826      | 6-850     | Triode    | 60 W.       | 19.00   |
| 827R     | 6-851     | Beam      | 800 W.      | 135.00  |
| 828      | 6-852     | Beam      | 80 W.       | 17.50   |
| 829      | 6-853     | Beam      | 40 W.       | 19.50   |
| 830B     | 6-854     | Triode    | 60 W.       | 10.00   |
| 832      | 6-855     | Triode    | 15 W.       | 17.00   |
| 833A     | 6-856     | Triode    | 45 W.       | 85.00   |
| 834      | 6-857     | Triode    | 12 W.       | 12.50   |
| 837      | 6-858     | Pentode   | 12 W.       | 2.80    |
| 838      | 6-859     | Triode    | 100 W.      | 11.00   |
| 841      | 6-860     | Triode    | 10 W.       | 3.75    |
| 842      | 6-861     | Triode    | 12 W.       | 3.25    |
| 843      | 6-862     | Triode    | 15 W.       | 2.90    |
| 845      | 6-863     | Triode    | 100 W.      | 10.00   |
| 846      | 6-864     | Triode    | 400 W.      | 120.00  |
| 850      | 6-865     | Triode    | 100 W.      | 37.50   |
| 852      | 6-908     | Triode    | 100 W.      | 16.50   |
| 856      | 6-866     | Tetrode   | 100 W.      | 32.40   |
| 854      | 6-867     | Pentode   | 10 W.       | 1.00    |
| 856      | 6-909     | Tetrode   | 10 W.       | 7.95    |
| 1608     | 6-868     | Tetrode   | 20 W.       | 4.00    |
| 1610     | 6-869     | Pentode   | 6 W.        | 2.00    |
| 1612     | 6-870     | Pentode   | 10 W.       | 3.75    |
| 1614     | 6-871     | Beam      | 21 W.       | 3.50    |
| 1619     | 6-872     | Beam      | 15 W.       | 4.75    |
| 1623     | 6-873     | Triode    | 30 W.       | 2.50    |
| 1624     | 6-874     | Beam      | 25 W.       | 3.50    |
| 1625     | 6-875     | Beam      | 30 W.       | 3.50    |
| 1626     | 6-910     | Triode    | 5 W.        | 2.50    |
| 1627     | 6-876     | Triode    | 150 W.      | 13.50   |
| 8000     | 6-877     | Triode    | 10 W.       | 1.00    |
| 8001     | 6-879     | Beam      | 75 W.       | 27.50   |
| 8003     | 6-880     | Triode    | 100 W.      | 12.00   |
| 8005     | 6-881     | Triode    | 85 W.       | 7.00    |

## SPECIAL AMPLIFIER TUBES

Reduced hum, microphonics and noise. \*For continuity of service. \*\*For aircraft use.

| Type | Stock No. | Tube Type  | NET    |
|------|-----------|------------|--------|
| 12A6 | 6-930     | 1T-Tetrode | \$1.50 |
| 12A6 | 6-931     | 1T-Tetrode | 2.75   |
| 12A6 | 6-932     | Pentode    | 4.75   |
| 12A6 | 6-933     | Pentode    | 4.75   |
| 1612 | 6-934     | Pentagrid  | 3.25   |
| 1621 | 6-935     | Pentode    | 2.50   |
| 1622 | 6-936     | 1T-Tetrode | 2.75   |

## RAYTHEON TUBES

Laboratory designed and constructed for use in specialized electronic equipment. Components such as filaments, grids, and plates are selected of highest quality material to provide trouble-free performance and long life.

| Mfr's Type | Stock No. | Tube Type      | Plate Diss. | NET     |
|------------|-----------|----------------|-------------|---------|
| 8K-20A     | 5-601     | Pentode        | 40 W.       | \$15.00 |
| 8K-25      | 5-603     | Pentode        | 10 W.       | 3.95    |
| 8K-34      | 5-605     | Triode         | 10 W.       | 3.50    |
| 8K-35      | 5-607     | Beam           | 25 W.       | 3.50    |
| 8K-49      | 5-611     | Beam           | 21 W.       | 1.25    |
| 8K-59      | 5-613     | Triode         | 15 W.       | 4.50    |
| 8K-60      | 5-614     | P.W. Rectifier |             | 2.75    |
| 8K-62      | 5-615     | Gas T-tube     |             | 3.50    |
| 8K-66      | 5-617     | Beam           | 30 W.       | 3.50    |
| 8K-807     | 5-618     | Beam           | 25 W.       | 3.50    |
| 866A       | 5-619     | Rectifier      |             | 1.50    |

## HEAT RADIATING CONNECTORS

Dissipate heat generated at grid and plate terminals of vacuum tubes. Size to maximum dia. of leads or caps connectors fit. \*For wire leads. \*\*For cap-type leads. WT, 2 oz.

| Stock No. | For Tubes        | Size  | NET |
|-----------|------------------|-------|-----|
| 73-000*   | HK-24            | .049" | 21c |
| 73-001*   | 35T, HK-54, etc. | .069" | 21c |
| 73-002*   | 100T, 807, etc.  | .369" | 41c |
| 73-003*   | 866, 1125, etc.  | .569" | 41c |

For additional listings and information on RCA transmitting and power-tube tubes ask for Power Tube Bulletin 27-054. **FREE on request.**



## PHOTOTUBES

| Type | Stock No. | Kind   | Use   | NET    |
|------|-----------|--------|-------|--------|
| 868  | 6-882     | Gas    | Sound | \$3.70 |
| 917  | 6-883     | Vacuum | Relay | 3.40   |
| 918  | 6-884     | Gas    | Sound | 2.30   |
| 919  | 6-885     | Vacuum | Relay | 3.35   |
| 920  | 6-886     | Gas    | Sound | 2.70   |
| 921  | 6-887     | Gas    | Sound | 2.00   |
| 922  | 6-888     | Vacuum | Relay | 2.70   |
| 923  | 6-889     | Gas    | Sound | 2.00   |
| 924  | 6-890     | Gas    | Relay | 2.00   |
| 925  | 6-891     | Vacuum | Relay | 2.00   |
| 926  | 6-892     | Vacuum | Color | 3.00   |
| 927  | 6-893     | Gas    | Sound | 3.70   |
| 928  | 6-894     | Gas    | Relay | 2.00   |
| 929  | 6-895     | Vacuum | Relay | 2.00   |
| 930  | 6-896     | Gas    | Sound | 2.00   |
| 931  | 6-897     | Gas    | Relay | 12.00  |

## TELEVISION TUBES

| Type         | Stock No. | Kind  | Size | NET     |
|--------------|-----------|-------|------|---------|
| 3AP4/906P4   | 6-898     | Kine. | 3"   | \$18.25 |
| 5AP4/1806P4  | 6-899     | Kine. | 5"   | 27.50   |
| 6BP4/1802P4  | 6-900     | Kine. | 5"   | 27.50   |
| 7AP4         | 6-901     | Kine. | 7"   | 36.00   |
| 9AP4/1804P4  | 6-902     | Kine. | 9"   | 62.50   |
| 12AP4/1803P4 | 6-903     | Kine. | 12"  | 75.00   |
| 1847         | 6-904     | Icon. | 3"   | 24.50   |
| 1898         | 6-905     | Mono. | 3"   | 24.00   |
| 1899         | 6-906     | Mono. | 5"   | 95.00   |

## RCA GUIDE

Contains circuits with illustrations, explanations, and parts lists. Detailed data on tuning, neutralizing, etc. Complete technical data on RCA transmitter tubes. **\$25.**  
**37-576. NET.**

**37-061. TUBE SOCKET BULLETIN.** Lists RCA sockets for RCA power tubes with special base or mounting. **FREE on request.**

## TAYLOR POWER TUBES

TYPE 866A 866. The world's most famous 866 half-wave mercury vapor rectifier. Features a new heavy-duty, fully shielded filament and ceramic protection for top plate lead. Filament 2.5 Volts at 5 Amps. Peak inverse voltage, 10,000 volts. Peak current, 600 ma. Ideal for heavy duty service. **WT, 2 lbs. 7-914. \$1.50 NET.**

| Mfr's Type | Stock No. | Plate Diss. | Class | NET     |
|------------|-----------|-------------|-------|---------|
| T-20       | 7-900     | 30 W.       | C     | \$ 2.25 |
| T-20       | 7-901     | 20 W.       | B-C   | 2.25    |
| T-21       | 7-902     | 21 W.       | B-C   | 1.95    |
| T-21       | 7-903     | 40 W.       | B-C   | 3.80    |
| T-21       | 7-904     | 40 W.       | B-C   | 3.50    |
| T-55       | 7-919     | 55 W.       | B-C   | 6.00    |
| 203A       | 7-908     | 100 W.      | B-C   | 10.00   |
| 203Z       | 7-909     | 65 W.       | B-C   | 8.00    |
| 805        | 7-910     | 125 W.      | B-C   | 12.50   |
| 814        | 7-911     | 200 W.      | B-C   | 18.50   |
| 814        | 7-912     | 200 W.      | B-C   | 18.50   |
| 814        | 7-913     | 200 W.      | B-C   | 18.50   |
| 866 Jr.    | 7-915     | Rectifier   | C     | 8.00    |
| T-125      | 7-916     | 125 W.      | C     | 13.50   |
| T-200      | 7-917     | 200 W.      | C     | 21.50   |
| MO-203A    | 7-918     | 150 W.      | B-C   | 14.50   |

## EMAC TUBES

Uses gas-free tantalum plates and grids. Provides high efficiencies at high frequencies.

| Mfr's Type | Stock No. | Plate Diss.      | NET     |
|------------|-----------|------------------|---------|
| 35T        | 7-700     | 70 W.            | \$ 6.00 |
| 35TG       | 7-701     | 70 W.            | 6.75    |
| 100T       | 7-703     | 100 W.           | 13.50   |
| 100TH      | 7-704     | 100 W.           | 14.50   |
| 250TL      | 7-705     | 250 W.           | 24.50   |
| 250T       | 7-706     | 250 W.           | 24.50   |
| 4Y21       | 7-707     | Keying Rectifier | 10.00   |

## GAMMATRON HK-24

An unusually popular general purpose low power triode. Plate dissipation 25 W. Power output, 90 W. max. Plate, 1500 V. max. at 75 ma. Thoriated fil. 6.3 V. at 3 A. 4-prong ceramic base. Has tantalum plate and cap. **WT, 1 lb. 7-750. NET. \$4.75**



# NEON LAMPS-LINE CORDS-REGULATORS

## GENERAL ELECTRIC NEON GLOW LAMPS

### T-2 TINY NEON LAMP



Fig. A. One of the smallest neon lamps made; only 1 1/4" long x 3/4". For any voltage above 90 V. DC or 65 V. AC at 3 ma. Requires current limiting resistance, 2 meg. for 105-125 V., 5 meg. for 210-250 V. Less resistor. Wt. 3 oz. 52-370. NET EACH.....8c

52-371. With 2 meg. resistance, 1/25 watt. 52-372. With 5 meg. resistance, 1/10 watt. 10 For 51.17. EACH.....13c

Fig. B. WITH BAYONET BASE. Same as T-2 above; less resistor; 1 1/4" overall. 52-373. 10 For 51.26. EACH.....14c

52-403. Bayonet socket for 52-373, above. 10 For 54c. EACH.....6c



Low wattage, neon-filled lamps that glow a bright orange-red. Innumerable applications: as signals on test equipment; ignition or panel-board indicators; fuse indicators, etc. Average useful life, 3000 hours. For 105-125 volts AC or DC. \*AC only. Av. Shipping wt., 4 oz.

### EDISON TYPE BASE

| No.    | Type | Finish | Watts         | EACH |
|--------|------|--------|---------------|------|
| 52-800 | *G10 | Clear  | 1/2           | 36c  |
| 52-801 | G10  | Clear  | 1 (210-250V.) | 36c  |
| 52-802 | G10  | Clear  | 2             | 45c  |
| 52-803 | S14  | Clear  | 2             | 45c  |
| 52-804 | S14  | Orange | 2             | 49c  |
| 52-805 | S14  | Red    | 2             | 49c  |
| 52-806 | S14  | Clear  | 3             | 54c  |

### CANDELABRA BASE

|        |        |       |     |     |
|--------|--------|-------|-----|-----|
| 52-807 | T 1/4" | Clear | 1/2 | 36c |
| 52-808 | *G10   | Clear | 1   | 41c |
| 52-809 | G10    | Clear | 1   | 41c |

### ARGON GLOW LAMPS

52-810. Type 5-14. Edison base; clear glass; 2 1/2 watts. NET.....45c

52-811. Type T-4 1/2. Candelabra base; clear glass; 1/4 watt. NET.....41c

## MALLORY BIAS CELLS

Designed principally to bias first audio tubes in high gain amplifiers. Eliminate necessity of using high-capacity cathode bypass condensers. Illustration shows single bias cell in No. 9-953 holder listed below. May also be used to furnish initial bias for RF, IF, and AVC. Size, 1 1/2" by 1 1/2". Provide a no-current potential of 1 or 1 1/2 volt  $\pm$  10%. May be used in series for higher voltages. 3 oz.

9-950. 1 Volt Type.

9-951. 1 1/2 Volt Type. EACH.....21c

### BIAS CELL HOLDERS

| Stock No. | Type | For     | EACH |
|-----------|------|---------|------|
| 9-955     | GB1A | 1 cell  | 9c   |
| 9-956     | B1B  | 1 cell  | 1c   |
| 9-957     | GB12 | 2 cells | 15c  |
| 9-958     | GB13 | 3 cells | 18c  |
| 9-959     | GB14 | 4 cells | 24c  |

## NEON LAMP SOCKETS



Candelabra, bayonet, and miniature base porcelain sockets with screw terminals. \*Metal shell over hard rubber. Sub-panel Shpg. wt., 8 oz. Cleat-panel

| Stock No. | Base         | Mount     | EACH |
|-----------|--------------|-----------|------|
| 52-850    | Edison       | Cleat     | 13c  |
| 52-851    | Edison       | Sub-panel | 19c  |
| 52-852    | Candelabra   | Sub-panel | 34c  |
| 52-853    | Candelabra   | Cleat     | 12c  |
| 52-854    | Bayonet      | Sub-panel | 26c  |
| 52-855    | Intermediate | Cleat     | 15c  |

See page 38 for panel mounting sockets.



### G-E RESISTORLESS TYPE

A neon type unit for use in voltage regulators, test instruments, noise silencers, and for high frequency equipment. There is no resistor in base of lamp. Can be matched to any test panel or instrument. Ideal panel indicator light. Has double contact bayonet base. Wt. 4 oz.

| Stock No. | Type   | Finish | Watts | EACH |
|-----------|--------|--------|-------|------|
| 52-812    | T 1/4" | Clear  | 1/2   | 41c  |
| 52-813    | G10    | Clear  | 1     | 41c  |
| 52-814    | G10    | Clear  | 1     | 41c  |
| 52-815    | S14    | Clear  | 2     | 49c  |

## VOLTAGE REGULATORS CLAROSTAT LINE VOLTAGE REGULATOR



Adjusts line voltage for all 110 Volt radios. Keeps set voltage constant even with line voltage increase to 140 volts. Plugs into wall outlet; set cord plugs into regulator. Shpg. wt., 1 lb.

| No.   | Type | Watts      |
|-------|------|------------|
| 9-920 | O.   | Up to 60   |
| 9-921 | A.   | 60 to 100  |
| 9-922 | B.   | 100 to 150 |
| 9-923 | C.   | 150 to 200 |
| 9-924 | D.   | 200 to 250 |

List. \$1.00. NET EACH.....59c



### ICA UNIVERSAL RESISTOVOLT

An automatic voltage regulator. Maintains a constant potential of 110 or 220 Volts, AC or DC, preventing tube burnouts, and assuring more stable performance. Easy to install—just plug in between line cord and wall outlet. For sets of from 5 to 9 tubes.

Shpg. wt., 1 lb. 9-970. NET EACH.....81c



## GENUINE G.E. TUNGAR BULBS



Used in many standard chargers. Replace Rectifier bulbs of same rating. Shpg. wt., 2 lbs.

| Stock No. | G.E. Type | Amps. | Fig. | EACH   |
|-----------|-----------|-------|------|--------|
| 9-900     | 277465    | 2     | A    | \$2.94 |
| 9-901     | 195528    | 2     | B    | 2.94   |
| 9-902     | 20X672    | 5     | C    | 3.67   |
| 9-903     | 289881    | 0.5   | D    | 2.94   |
| 9-904     | 189046    | 6     | E    | 3.67   |
| 9-905     | 189049    | 6     | F    | 3.67   |
| 9-906     | 217283    | 15    | D    | 7.35   |



## GENUINE G-E MAZDA PILOT AND FLASHLIGHT BULBS

General Electric Mazda clear pilot light bulbs. Famous the world over for their quality, dependability, and long life. Standard bead coloring. Type 40. Brown bead; types 41, 43, 50, 51, and 55. White bead; types 42 and 45. Green bead; types 44 and 50. Blue bead; types 48 and 49. Pink bead. Cheaper than foreign-made bulbs in the long run. \*Indicates miniature bayonet base. †Indicates small round bulb. Av. shpg. wt., 3 oz.

### RADIO PILOT LIGHT BULBS

| Stock No. | Lamp No. | Volts | Amps. | NET EACH | Box of 10 |
|-----------|----------|-------|-------|----------|-----------|
| 52-306    | 41       | 2.5   | .50   | \$0.89   | \$0.54    |
| 52-308    | 43       | 2.5   | .50   | .09      | .54       |
| 52-307    | 42       | 3.2   | .35   | .12      | .71       |
| 52-305    | 40       | 6-8   | .15   | .09      | .54       |
| 52-315    | 50†      | 6-8   | .20   | .12      | .59       |
| 52-316    | 51†      | 6-8   | 1.0   | .07      | .43       |
| 52-320    | 55†      | 6-8   | .40   | .07      | .41       |
| 52-313    | 48       | 2.0   | .06   | .15      | .88       |
| 52-314    | 49*      | 2.0   | .06   | .15      | .88       |
| 52-309    | 44*      | 6-8   | .25   | .09      | .54       |
| 52-311    | 46       | 6-8   | .25   | .09      | .54       |
| 52-312    | 45*      | 3.2   | .35   | .12      | .71       |
| 52-312    | 47*      | 6-8   | .15   | .09      | .54       |

### 56 110 VOLT PILOT LAMPS

Rated 1500 hrs. av. use. Candelabra base; clear finish; 1 1/4". 4 oz.

52-349. 6 Watt. NET.....15c

52-347. 3 Watt. NET.....25c

TYPE C7. As above, but cone shaped; 2 1/4" length. 7 watts. Wt., 4 oz.

52-355. Clear. 52-356. White. 52-357. Red. EACH.....10c



### AC-DC LINE CORD RESISTORS



6-foot resistor cord supplies proper voltage for tubes wired in series across 115 volt lines.

| Stock No. | Ohms | Stock No. | Ohms | NET EACH |
|-----------|------|-----------|------|----------|
| 49-510    | 360  | 49-517    | 220  | 47c      |
| 49-511    | 350  | 49-518    | 200  |          |
| 49-512    | 330  | 49-519    | 180  |          |
| 49-513    | 280  | 49-520    | 160  |          |
| 49-516    | 250  | 49-522    | 135  |          |

### UNIVERSAL AC-DC TYPE



6 resistance values up to 350 ohms. Select resistance required and clip off remainder. 6' cord.

49-530. NET.....65c

## TUBULAR 120 VOLT 4-WATT PILOT LAMP

New long-life 4-watt tubular candelabra-base pilot lamp. Crystal clear finish. Conforms to exacting U.S. Government specifications. Ideal for use in signal panel opening, dials, etc. Has the appearance of a radio pilot lamp. Size: 1 1/2" in diameter; 1 1/2" in length. Shpg. wt., 4 oz.

52-350. NET.....39c



### 220-110 VOLT AC-DC LINE CORD



Operates any 110 Volt AC-DC receiver from 220 Volt line. With plug and receptacle. 1 lb.

49-580. For sets using .15 amp. tubes.

49-581. For sets using .3 amp. tubes.

NET EACH.....85c

### "MAKE-UR-OWN" RESISTANCE CORDS

Color-coded line-cord wires with asbestos-covered resistance wire. Easily cut to size.

| Length  | 30 Ohms Per Ft. |     | 60 Ohms Per Ft. |     |
|---------|-----------------|-----|-----------------|-----|
|         | Stock No.       | NET | Stock No.       | NET |
| 5 Feet  | 49-561          | 22c | 49-571          | 22c |
| 25 Feet | 49-562          | 99c | 49-572          | 99c |



# ELECTRONIC TEST EQUIPMENT

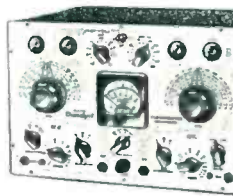
## TEST EQUIPMENT AND WAR PRODUCTION

The greatest job of industrial expansion and production in history is taking place today—plane—tank—ship—gun—in quantities that stagger the imagination. And a Herculean share of this program rests squarely upon Radio and its associated field of Electronics. The voice, the ear, the very nerve center of all the arm forces—precision methods heretofore only dreamed of, weapons and tools of almost unbelievable accuracy—these are the developments of Radio and Electronics and are possible only through the use of precision test equipment. We at ALLIED are proud of our advanced position which enables us to meet the demands of industry and the armed forces for the precision instruments so vital to the successful conduct of the war.

## TEST EQUIPMENT AND PRIORITIES

The war has greatly increased the demand for precision test equipment. The needs of our rapidly expanding armed forces, war industries and training schools have taxed the instrument manufacturers to capacity. V.P.R. priorities, consequently, are required for the purchase of test equipment, and speed of delivery will depend upon the priority submitted. To insure handling of your order, please extend highest possible priority. In many cases shipment can be made from stock. ALLIED's Purchasing Department is in constant contact with the manufacturers of all leading test equipment and with latest priority regulations. We shall be glad to recommend the instruments most readily available and to supply latest priority data. Write for specific information.

## RCA TEST INSTRUMENTS



**162-C RCA-RIDER CHANNEL ANALYST**

Traces signals from antenna to speaker. 12 tubes; RF-IF channel covers 95 KC to 1700 KC; oscillator channel covers to 15 MC. AF channel, resistance-capacity coupled. Each channel employs cathode-ray tuning eye. Has waveguide indicator, zero center reading electronic voltmeter, 4 ranges, 0 to 500 volts. Voltmeter input impedance, 11,000, 000 ohms. Measures line wattage; gain-per-stage; operating voltages; reactance; time constants; localizes distortion, noise, etc. Complete with tubes and shielded cables with probe handles. Measures  $10\frac{1}{2} \times 16 \times 9$ ". For 105-125 volts, 50-60 cycles. Shpg. wt., 28 lbs.

**84-029. NET \$107.50**



**167A TEST OSCILLATOR**

Covers RF range from 110 KC to 30,000 KC. Harmonics of the last band may be used for U.H.F. The audio modulation frequency is 400 cycles. Has 8 volt output for testing audio circuits, etc. Maximum RF output on low range is 01 volt, medium range, 25 volt; and high range, 1 volt. Minimum signal is 2 millivolts. Output impedances are 10, 750, and 4,000 ohms. Blue-gray metal cabinet.  $13\frac{3}{4} \times 9\frac{1}{2} \times 6\frac{1}{2}$ ".

With tubes. For 110-120 V., 50-60 cycles. Wt., 16 lbs. **84-028. NET \$99.95**



**154 AUDIO OSCILLATOR**

Output is 30 to 15,000 cycles,  $\pm 1$  db. from 30 to 10,000 cycles, and down 2 db. at 15,000 cycles. Output impedances, 250, 500, and 5,000 ohms. Output voltage, 5.2 volts at 250 ohm load to 37.5 volts at no load. Power output is 125 milliwatts. Distortion less than 5% RMS over entire range. Gray vinyl finished cabinet.  $9\frac{1}{2} \times 13\frac{3}{4} \times 6\frac{1}{2}$ ". Has A.C. tubes. For 110-120 volts, 50-60 cycles. Wt., 19 lbs.

**84-034. NET \$57.50**



**165 JUNIOR VOLTOHMYST**

The 165 is a push-pull electronic voltmeter and ohmmeter. DC ranges are 100, 1,000, 10,000 volts with a constant input resistance of 11,000,000 ohms. The AC voltmeter ranges are: 0-10-30-100-300-1,000 volts at 1,000 ohms per volt. Uses a copper-oxide rectifier in no isolated AC circuit. The electronic ohmmeter measures from 1 ohm to 1,000 megohms in 6 ranges. No zero rest required when changing scales and no leads to short. Meter accuracy is  $\pm 2\%$  at full scale. The matched pair multiplier resistors are accurate to  $\pm 1\%$ . Sturdy nickel plated case in gray. Silver gray. Has a black leather handle. Size:  $9\frac{1}{2} \times 5\frac{1}{2} \times 5\frac{1}{2}$ ". With tubes and 3 test leads. For 105-125 V., 50-60 cycles. Wt., 14 lbs.

**84-020. NET \$37.50**



**155-C 3" OSCILLOSCOPE**

Features precision and lightweight portability. Amplifier response, flat from 20 to 90,000 cycles. Amplifier gain is 40. Timing axis, 5-65,000 cycles. Sensitivity without amplifier, 20 volts RMS per inch deflection; with amplifier, 3 volt RMS per inch deflection. Uses RCA 6X4P1, 900-P1 cathode ray tube. Cabinet has a blue-gray baked lacquer finish. Size:  $15 \times 8 \times 14\frac{1}{2}$ ". Sturdy nickel plated case in gray. Silver gray carrying handle. Power consumption, 50 watts. Complete with tubes. For 110 volts, 50-60 cycles. Shpg. wt., 32 lbs.

**84-040. NET \$78.00**

## HICKOK TEST INSTRUMENTS

**188X FM-AM UNIVERSAL SIGNAL GENERATOR**

Designed for analyzing FM as well as AM receivers. Continuous fundamental coverage from 100 KC to 110 MC in 7 ranges with an accuracy better than 1%. Provides 12 outputs: RF with 750 KC sweep, RF with 150 KC sweep, both to 13 MC; RF with 30 KC sweep; RF modulated at 400 cycles, RF unmodulated, AF 100-10,000 cycles, AF 400 cycles fixed, synchronized sweep voltage for some use; crystal-controlled outputs with an accuracy of 10%; 100-15,000 KC modulated at 400 cycles, 100-15,000 KC unmodulated, 1000 KC-100 MC modulated at 400 cycles, and 1000 KC-100 MC unmodulated. Meter reads: 10 to  $\pm 5$  db, and 0-140 volts in 3 ranges. With tubes, crystal, cables, and manual.  $13 \times 13 \times 7\frac{1}{2}$ ". For 110-120 volts. Wt., all models, 26 lbs.

**84-100. NET \$72.32**  
**84-101. Model 188. Same as 188X but less crystal and crystal tube. NET \$62.92**

**155 METERIZED DYNAMIC TRACEOMETER**

Features Meterized Dynamic Signal Tracing at its best. Five precision meters allow tracing and measurement of signal in any five circuits simultaneously. Design of vacuum tube voltmeter circuits prevents meter damage from overload. Measures signal in microvolts at any RF or IF point in set. Indicates all DC, AVC, AFC, power supply, etc., and AF or AC voltages. RF-IF covers 100 to 1800 KC. Ranges are 0.5-100, 2.5-100,000, microvolts and 0.5-2.5-10-25 volts. Oscillator covers 600 to 1700 KC, 1.7-5.15 MC; voltage ranges are: 0.3-1.5-7.5-30.0 and 150 volts. DC voltmeter ranges are: 0.2-5-25-50-250 and 500 volts with a zero-center. Input impedance is 18 megohms. AF covers 0.1-1-10-100 and 500 volts at an input impedance of 2 megohms.  $13 \times 16 \times 10\frac{1}{2}$ ". Wt., 50 lbs. For 110 V., 60 cycles.

**84-115. NET \$126.42**

**RFO-5" OSCILLOSCOPE**

Offers complete visual analysis of a signal. A calibrated screen allows quantitative measurements of voltage gain. Visual type VTVM reads 2 to 1,000 V. AC. Has a self-contained frequency modulated oscillator, 100 to 900 KC sweep (basic frequency, 23 MC) and a 10-10 KC sweep (basic frequency, 23 MC). The wide-band oscillator can be modulated externally by a phono pickup, mike or AF oscillator to provide a frequency modulated transmitter for checking FM receivers. No external oscillator is required as the 2nd harmonic of 23 MC falls in the center of the 42-50 MC FM band. Has return trace eliminator, fuse protection, pilot light and phasing control. Size,  $11 \times 11 \times 15\frac{1}{2}$ ". For 110 V., 60 cycles. Wt., 50 lbs.

**84-114. NET \$102.02**

**202 ELECTRONIC AC-DC V.O.M.**

Makes all AC, DC, AF, and most resistance measurements while the set is in operation. Circuit design of the instrument provides protection against accidental overloads. AVC, AFC, FM discriminator voltages, stage gain, etc., may be measured with the circuit in operation. Ranges: 0.5-2.5-10-50-250-1,000 V. DC with an input impedance of approximately 2.5 megohms on all ranges; 0.2-5-10-25-50-250-1,000 V. DC with an input impedance of 14 megohms; 0.2-5-10-50-250-1,000 V. DC with an input impedance of approximately 2.5 megohms in 5 ranges with a single zero adjustment for all ranges. Shielded case, powered. Self-contained power supply uses 1 each: 6XSGT, 6J5, 6SQ7, VR150-40. Pilot light indicator. With tubes.  $10\frac{1}{2} \times 8 \times 7$ ". For 110 V., 50-60 cycles. Wt., 17 lbs.

**84-106. NET \$46.30**

SEE NEXT PAGE FOR ADDITIONAL RCA AND HICKOK LISTINGS



HICKOK 155  
TRACEOMETER

RCA 165  
VOLTOHMYST

SUPREME  
589 TESTER

# QUALITIES

## STANDARD BRANDS

ALLIED carries all standard brands of high quality test equipment for every testing purpose. The listings tabulated on these pages are only representative. For complete descriptions refer to descriptive, or write for descriptive literature, indicating model in which you are interested. Complete data will be supplied promptly. All units, unless otherwise indicated, are at \$15 V., 60 cycle AC operation. (Shpg. wts. are shown.)

## CORNELL-DUBILIER

- 84-451. BF-50 Wein Bridge.** Measures and checks condensers from .0001 to 240 mfd. Less 1—12A7 and 1—6E5 tubes. 6½ x 12 x 9½". 10 lbs. NET. \$29.28
- 84-450. BN Compact Bridge.** Measures condensers from .0001 to 50 mfd. Less 12A7 & 6AF6G tubes. 3 lbs. NET. \$11.64
- 84-452. CDA-5 Capacitor Decade.** From .0001 to .011 mfd. in .0001 mfd. steps. 600 V. DC. Tolerance, ±5%. 4 lbs. NET. \$6.35
- 84-453. COB-5 Capacitor Decade.** From .01 to 1 mfd. in steps of .01 mfd. 600 V. 11C. Tolerance, ±5%. 4 lbs. NET. \$6.35
- 84-454. COC-5 Capacitor Decade.** From 1.0 to 10 mfd. in steps of 1.0 mfd. 600 V. DC. Tolerance, ±5%. 4 lbs. NET. \$11.29

## DUMONT

- 84-750. 164-E 3° Oscillograph.** Sensitive, high input impedance amplifiers, 5,100,000 cps range. Black case. 11½ x 7½ x 13". Complete with tubes. 25 lbs. NET. \$64.50
- 84-756. 224 3° Oscillograph.** Vertical axis amplifiers response 20 CPS to 2 mcg. Linear sweep frequency, 15 to 30,000 CPS. 14½ x 8½ x 15½. 55 lbs. NET. \$239.50
- 84-751. 168 5° Oscillograph.** Has 2-stage vertical amplifier. Sweep circuit, 15 to 30,000 cycles. Calibrated scale. Complete with tubes. 15½ x 14 x 8½. 40 lbs. NET. \$127.50
- 84-754. 165 Electronic Switch.** For viewing 2 separate traces on screen of a scope. Contains 2 parallel amplifiers. Complete with tubes. 11½ x 7½ x 13". 23 lbs. NET. \$71.50
- 84-752. 208 5° Oscillograph.** Wide-range, sensitive amplifiers. Sweep circuit, 15 to 30,000 cycles. With tubes. 14½ x 14½ x 8½. 67 lbs. NET. \$167.75
- 84-753. 175A 5° Oscillograph.** As above with added control of horizontal amplifier for viewing non-recurrent transient signals. With tubes. 17 x 12 x 23½. 69 lbs. NET. \$231.00
- 84-755. 215 Linear time base generator.** 12 to 125 CPS sweep. Balanced output signal voltage, 450 V. peak to peak max. undistorted output. 14½ x 8½ x 19½. Shpg. wt., 47 lbs. NET. \$215.00

## HICKOK

- 84-114. RFO-5 3° Oscillograph** and Wobulator. For AM, FM, and television servicing. Demodulator for signal-tracing. With tubes. 11 x 13 x 15½". 50 lbs. NET. \$102.02
- 84-108. 19X Crystal Controlled Microvolt Generator.** 100 KC. to 120 MC. 100% accuracy. 0-10% blue built-in VTM. With tubes. 13 x 16 x 7". 30 lbs. NET. \$94.08
- 84-109. 110 AC-DC VTVM.** 0-1.5-3-15-75-150-750-500 V. DC and 0-1.5-5-50-150 V. AC. 11 x 13 x 7". 21 lbs. NET. \$64.68
- 84-115. 155 Tracometer.** For servicing AM, FM, and television. Has 5 meters, with signal tracing method. Has 5 meters. With tubes. 13 x 16 x 10". 30 lbs. NET. \$126.42
- 84-100. 188X Signal Generator.** Has AM, FM, and Television sweeps; 4 crystal-controlled outputs. With tubes. 13 x 16 x 10". 30 lbs. NET. \$72.32
- 84-101. 188.** Same as 188X above, but less crystal and crystal tube. NET. \$62.92
- 84-102. 177X.** Same as 188X above, but less meter and crystal. NET. \$62.03
- 84-103. 177.** Same as 188X above, but less meter and crystal. NET. \$52.33
- 84-106. 202 Electronic AC-DC VOM.** Reads to 1,000 V. AC and DC, and to 1,000 megohms. 10½ x 8 x 7". 17 lbs. NET. \$46.30
- 84-111. 2105 Jumbo Zero Current VOM.** Infinite ohms-per-volt. 9½ x 8½" meter. 16 x 13 x 7". 35 lbs. NET. \$67.91
- 84-107. 510X Dynamic Mutual Conductance Tube and Set Tester.** Checks capacity and leakage of condensers. 3" meter. 14 x 13½ x 6". 21 lbs. NET. \$71.74

## HICKOK (Cont'd)

- 84-104. 530C Dynamic Mutual Conductance Tube Tester.** Has microhms and "Good-Replace" scales. Less 83 and 5W4 tubes. 22 lbs. NET. \$58.80
- 84-105. 530P.** As above, but portable. 14½ x 13 x 6". 22 lbs. NET. \$58.80
- 84-112. Model 900 Universal Appliance Tester.** Indicates AC voltage, current and wattage. 9½ x 6 x 3". 11 lbs. NET. \$38.81
- 84-113. 4355S AC-DC VOM.** Sensitivity, 1,000 ohms-per-volt. Reads to 0-10 meg. 7 x 4½ x 3½". 5 lbs. NET. \$29.69

## MEISSNER

- 84-950. Analyst.** 95-1700 KC. RF-IF Channel. 4-range electronic voltmeter. Traces signal. 35 lbs. NET. \$94.32

## PRECISION

- 84-409. E20C Signal Generator.** 90 KC to 88 MC. 4 outputs. With tubes, cables, etc. 12 x 10½ x 6". 20 lbs. NET. \$43.07
- 84-410. 812-A 31 Range AC-DC Tester.** Reads to 1,200 V. DC; to 2,400 V. AC; to 5 meg. and to 600 ma. DC. Wood case. 7 x 4½ x 3". 4 lbs. NET. \$18.28
- 84-401. 844P 14-range VOM.** Wood case. 9 x 10 x 6". Lens 1—80-515 and 1—80-517 batteries. See page 26. 9 lbs. NET. \$29.06
- 84-402. 844L.** Same as 844P above, but less cover and compartment. NET. \$26.90
- 84-405. 856P. 44-Range Tester.** Covers ohms, volts, amps, ma., etc. With batteries and leads 11 lbs. NET. \$43.07
- 84-406. 858L.** Same as 856P but less cover. 7½ x 8½ x 4". 9 lbs. NET. \$40.92
- 84-416. 912 MCP Tube Tester.** 4½" meter. Tests all tubes and dry batteries. Size, 12 x 10½ x 6". 19 lbs. NET. \$40.91
- 84-415. 912P.** As above but in portable case, 12 x 10½ x 6". 19 lbs. NET. \$45.23
- 84-408. 920C Mutual Conductance Tube and Set Tester.** Tests all tubes. Has 33 range VOM with 4½" meter. Counter-type. 16 x 12 x 8". 22 lbs. NET. \$64.63
- 84-407. 920P.** Same as 920C but in portable case, 12 x 13 x 6". NET. \$64.63

## RADIO CITY PRODUCTS

- 84-223. 309C Tube Tester.** 3" meter. Has noise and leakage test. Counter model. 9 x 12 x 5". 10 lbs. NET. \$18.57
- 84-224. 309P.** Same as 309C but in portable case. 11½ x 12 x 7". NET. \$21.02
- 84-225. 310P Tube Tester.** 3" meter. Has noise and leakage tests. Portable. 13½ x 13 x 4½". 12 lbs. NET. \$28.37
- 84-227. 310C.** Same as 310P but counter model. 11½ x 13½ x 7½". NET. \$25.43
- 84-216. 313C Tube Tester.** 9" meter. Push-button. Counter model. For 105-135 V. 11 x 18½ x 7½". 18 lbs. NET. \$37.19
- 84-230. 313P.** Like 313C but port-counter type. 12 x 18½ x 9". NET. \$40.13
- 84-200. 411 Super Tester.** 33 range AC-DC VOM. 5,000 ohms per volt. 3" meter measures up to 5,000 volts. With batteries. In wood case. 7½ x 5½ x 3½". 3 lbs. NET. \$19.06
- 84-204. 413P.** Same as 411 but in hinged-cover wood case. 3½ lbs. NET. \$21.51
- 84-242. 419 VOM.** Reads to 5,000 V. AC-DC; 25 amps. DC; 15 meg. 300 mfd.; 10,000 henries. 2,000 ohms per volt. 4½" meter. 9½ x 9½ x 9". NET. \$32.83
- 84-243. 419P.** Same as 419 but in portable case. 9½ x 12½ x 6". 10 lbs. NET. \$35.77
- 84-229. 415 Coin-Machine Tester.** Wood case. 6 x 3 x 2½". 3 lbs. NET. \$11.71
- 84-231. 415P.** Same as 415 but in portable case. 6 x 4½ x 4". 3½ lbs. NET. \$13.67
- 84-221. 417 Appliance Tester.** Measures volts, amperes, and watts. AC or DC. 11½ x 6½ x 3". 2½ lbs. NET. \$12.69

## RADIO CITY PRODUCTS (Cont'd)

- 84-222. 417P.** Same as 417 but in hinged-cover case. 6 x 4½ x 4". 3½ lbs. NET. \$14.65
- 84-237. 423 VOM.** 3" meter. Ranges 0-1000 V. DC & AC; 0-1000 ma.; 0-10 meg. —10 to +55 db. With batteries. 7½ x 5½ x 3½". 3 lbs. NET. \$23.03
- 84-238. 423P.** As above, but portable. 8 x 6 x 4½". 4½ lbs. NET. \$25.43
- 84-241. 446A AC-DC Multitester.** 25 ranges. 1,000 ohms-per-volt 3" meter. With batteries. 3 x 8½ x 5". 4 lbs. NET. \$13.18
- 84-246. 446AP.** Same as 446A but, in hinged-cover portable case. 8½ x 6½ x 4½". Has tool compartment. 4½ lbs. NET. \$15.14
- 84-220. 506C Analyzer Unit.** Permits free-point testing when used with VOM. Case. 5½ x 7½ x 3". 3½ lbs. NET. \$16.17
- 84-219. 506E.** Same as 506C above but less case. 3 lbs. NET. \$14.65
- 84-232. 562 Electronic Multitester.** A VTVM; 4½" meter; 6,000 V. AC or DC; 1,000 meg.; 2,000 mfd. Input impedance, 160 meg. 9½ x 9½ x 7½". 10 lbs. NET. \$46.55
- 84-233. 662 V-T.** Like 662 above, but has 8½" meter. 19 x 10½ x 5½". Wt., 17 lbs. NET. \$60.27
- 84-238. 666 VTVM.** Ranges 0-3-30-350 Volts. 4½" meter. Prober leads for batteries. 9½ x 9½ x 4½". 10 lbs. NET. \$43.79
- 84-234. 678 Electronic Limit Bridge.** For precision resistance tests. 4½" galvanometer. 14½ x 10½ x 8½". Wt., 12 lbs. NET. \$147.00
- 84-236. 703 Signal Generator.** 90 KC to 25 MC on fundamentals; to 100 MC on harmonics. 5 bands. 500 cps. Unmodulated or modulated 30% at 400 CPS. Etched panel. Direct planetary drive turning. Low leakage. 8 x 11½ x 5". Wt., 15 lbs. NET. \$32.83
- 84-205. 802 Tube and Set Tester.** A modern tube tester and VOM. Reads to 1,000 V. AC or DC; 10 amps. DC; 10 meg.; 4-55 db. 4½" meter. fuse protected. Sensitivity 1000 ohms/volt on DC. Ideal combination unit. 12 x 12½ x 6". 12 lbs. NET. \$33.27
- 84-206. 802A.** Same as 802 above, but also contains in its cover the 506 Analyzer Unit described above. 13 lbs. NET. \$46.99
- 84-217. 803 Tube Tester and VOM.** Roll-type chart. 4½" meter reads to 1,000 V. AC or DC; 10 amps. DC; 10 meg.; 55 db. 14½ x 13 x 6". 13 lbs. NET. \$39.15
- 84-218. 803A.** As above but with 506 Analyzer Unit in its cover. NET. \$52.87

## R.C.A.

- 84-034. 154 Audio Oscillator.** 30 to 150,000 cycles. 1-ohm distortion. Excellent wave-form. 9½ x 13½ x 6½". 19 lbs. NET. \$57.50
- 84-040. 155C 3° Oscillograph.** Amplifier flat 20 to 90,000 cycles with gain of 40. Sensitivity, .5 V. RMS per inch. With tubes. 15 x 8 x 14". Weight, 15 lbs. NET. \$78.00
- 84-036. 158 5° Oscillograph.** Amplifier sensitivity, .04 V. RMS per inch without cable. V. V. cable frequency range, 50 cps to 500 KC. Sweep 4 to 22,000 cps. Includes 4 ft. low capacity cable and tubes. 14½ x 8½ x 19½". 30 lbs. NET. \$160.00
- 84-023. 160-B 5° Oscillograph.** Amplifier sensitivity, .013 V. RMS per inch; frequency response, 1 cycle to 80,000 KC. Input 500,000 ohms; max. signal volts 500 RMS. Sweep freq. 4 to 22,000 cps. With tubes. 14½ x 8½ x 19½". 40 lbs. NET. \$142.50
- 84-032. 164. Chalyne Converter.** For converting RCA Rider Chalyne (above, right) for use up to 80,000 KC. Includes new type probe having only ¼ mfd. capacity; does not load or detune HF circuits. With tubes. 10½ x 9½ x 9½". Shpg. wt. 18 lbs. NET. \$55.00



# INSTRUMENTS

## DELIVERIES AND PRIORITIES

All test instruments are vitally essential in the war effort—and are available only under high priority rating. Therefore, the higher the priority submitted with orders, the faster shipment can be made. We can promptly furnish data on existing priority requirements and latest delivery information on inquiry. Whenever W.P.B. allows test equipment for civilian use, we will be among the first to supply instruments to radio service-men.



### R.C.A. (Cont'd)

- 84-029. 162C Rider Chanalyzer.** For signal tracing receivers and amplifiers. Range, 95-1700 KC. Built-in oscillator. Four magic eye indicators, plus electronic voltmeter. 10%  $\pm$  10  $\times$  9". 28 lbs. NET.....\$107.50
- 84-030. AF Adapter.** For above. Filters out 60 and 120 cycle hum for more accurate measurement of AF gain. Connects between AF cable and jack on Chanalyzer. NET \$1.75
- 84-020. 155 Junior Voltmeter.** Reads to 1,000 V. AC or DC; 100 megohms. Input impedance, 11 megs. on DC ranges. 9 1/2  $\times$  5 1/2  $\times$  5 1/2". 14 lbs. NET.....\$37.50
- 84-028. 167-A Test Oscillator.** Covers 100 to 30,000 KC. on fundamental. Output of 8 V. 6 1/2" dial. Highly accurate. 1 3/4  $\times$  9 1/2  $\times$  6 1/2". 16 lbs. NET.....\$39.95
- 84-033. 170 Audio Chanalyzer.** For audio amplifier measurements of gain, operating levels, noise and hum. Measures AF and DC voltages, resistances, and impedances, and microphone output. Built-in o.c. Has electronic voltmeter and speaker. The ideal unit for amplifier service. 40 lbs. NET.....\$225.00
- 98-560. 182 Dynamic Demonstrator III.** Consists of complete 5-tube receiver mounted on large board for wall mounting in class room. Receiver wired on schematic diagram and includes pin jacks for measurements. 41  $\times$  20  $\times$  12". Wt., 30 lbs. NET.....\$75.00

### READRITE

- 84-700. 432A Tube Tester.** Tests all tubes. Has 3 "Red-Dot" lifetime meter, showing "Good-Bad" scale on all types. "Good" value. Has neon bulb for leakage checks. 10 1/2  $\times$  9 1/2  $\times$  6 1/2". 18 lbs. NET.....\$20.31
- 84-701. 432C.** Same as 432A above but less tool compartment. NET.....\$19.26
- 84-707. 432A-742 Tube Tester and VOM.** Reads to 2,500 V. AC or DC; 100 ma DC; 1.5 megs. Less 1 Burgess 6X4 tube. 11 1/2  $\times$  10 1/2  $\times$  6 1/2". 20 lbs. NET.....\$28.96
- 84-706. 510 Volt-Ohmmeter.** Reads 0-300 V. DC and 0-10,000 ohms. With battery and leads. 2 1/2  $\times$  2 1/2  $\times$  3". 3 lbs. NET.....\$2.44
- 84-708. 511 Volt-Ohmmeter.** Reads 0-30-300 V. DC; 0-10,000 ohms. With battery and leads. 2 1/2  $\times$  2 1/2  $\times$  3". 3 lbs. NET.....\$3.09
- 84-708. 557 Battery-operated Signal Generator.** 110 KC to 20,000 KC in 5 bands on fundamentals. With tubes, batteries, etc. 12  $\times$  6 1/2  $\times$  3 1/2". 12 lbs. NET.....\$20.37
- 84-704. 731 VOM.** Reads to 1,500 V. DC; 150 ma DC; 500,000 ohms. 1,000 ohms per volt. 3" Triplett meter. With battery, test leads, etc. 3 1/2  $\times$  5 1/2  $\times$  2 1/2". 5 lbs. NET.....\$8.08
- 84-703. 733 VOM.** Reads to 1,500 V. DC or AC; 150 ma DC; 500,000 ohms. 1,000 ohms per volt. 3" Triplett meter. With battery, leads, etc. 3 1/2  $\times$  5 1/2  $\times$  2 1/2". 5 lbs. NET.....\$10.67
- 84-702. 860 VOM.** Reads to 1,000 V. DC or AC; 100 ma DC; 15 megs.;  $\pm$  5 db. 5,000 ohm per volt. 7" Triplett meter. 1 1/2  $\times$  7 1/2  $\times$  4 1/2". Weight, 18 lbs. NET.....\$19.26

### SUPREME

- 84-830. 504A Portable Lab.** Combines a modern tube tester and VOM. Reads to 2,500 V. DC; 1,000 V. AC; 10 amps. DC; 20 megs.  $\pm$  12%  $\times$  12 1/2  $\times$  6 1/2". 21 lbs. NET.....\$81.25
- 84-835. 542 VOM.** Reads to 1,500 V. DC at 5,000 ohms per volt; 600 V. AC; 2 megs.; 150 ma DC;  $\pm$  50 db. 3" meter. With battery. 3  $\times$  5 1/2  $\times$  2 1/2". 2 lbs. NET.....\$20.33
- 84-837. Identical to 542 above but in metal case with hinged cover. NET.....\$22.49**
- 84-836. 543 VOM.** Reads to 1,000 V. DC at 5,000 ohms per volt; 200,000 ohms. 100 ma DC; 3,000 V. AC; 3" meter. With battery. 3  $\times$  5 1/2  $\times$  2 1/2". 2 lbs. NET.....\$15.92
- 84-838. Identical to 543 above, but in metal case with hinged cover. NET.....\$17.59**
- 84-823. 546 3" Oscilloscope.** Sensitive, wide range linear amplifier. A.C. input 12 1/2  $\times$  1 3/4  $\times$  7 1/4". 24 lbs. NET.....\$80.85

### SUPREME (Cont'd)

- 84-830. 549 Electronic Voltmeter.** 28 range VOM. Reads to 6,000 V. DC; 500 V. AC; 1000 megs.; 15 amps. DC. 10 lbs. NET.....\$45.81
- 84-837. 560A Vodealyzer.** Signal tracer. Has 3" scope and VTVM which may be connected to any part of receiver. Wave analyzer and freq. meter from 65 KC to 6.5 MC. 17 1/2  $\times$  11 1/2  $\times$  4 1/2". 40 lbs. NET.....\$160.67
- 84-836. 561 Oscillator.** 65 KC to 20.5 MC on fundamentals; 15 to 15,000 cycles above. Has frequency modulator and VTVM. 6" dials. 17 1/2  $\times$  9 1/2  $\times$  12". 33 lbs. NET.....\$105.35
- 84-835. 562 Audalyzer.** For dynamic signal tracing of receivers. Has demodulator which can be connected to any part of circuit. 5-band RF section covers 100 KC to 15 MC. Probe does not detune circuit. Zero-center VTVM reads to 1,000 V. DC; 20 megs. 17 1/2  $\times$  9 1/2  $\times$  12". 32 lbs. NET.....\$97.95
- 84-840. 563 Audio Oscillator.** Covers 15 to 15,000 cycles on directly calibrated 6" dial. 1 1/2  $\times$  9  $\times$  6 1/2". 21 lbs. NET.....\$56.35
- 84-839. 571 Oscillator.** Covers 65 KC to 20.5 MC on fundamentals. Output, 1 V. to 5 microvolts. Illuminated dial. 1 1/2  $\times$  8 1/2  $\times$  19 lbs. NET.....\$49.73
- 84-800. 583 Tube and Battery Tester.** Single instrument for emission checking of tubes and all dry cell batteries under proper load. Tests all types of tubes. 3" meter. 11 1/2  $\times$  3 1/2  $\times$  12". 12 lbs. NET.....\$37.73
- 84-800. 595 Tube Tester and VOM.** Same as 589 above. Also reads to 1,500 V. DC at 1,000 ohms per volt; 600 V. AC; 600 ma DC; 20 megs. 11 1/2  $\times$  9 1/2  $\times$  12 1/2". 12 lbs. NET.....\$48.95
- 84-820. 592 Set Tester.** 46 range. Reads 25,000 ohms per volt. 100 V. DC; 100 ma DC; 14 amps. DC; 50 megs.;  $\pm$  46 db. 4" meter. 7 1/2  $\times$  9  $\times$  6 1/2". 10 lbs. NET.....\$54.83

### TRIPLETT

- 84-538. 625T VOM.** 21 ranges. 10,000 ohms per volt. Reads to 5,000 V. AC-DC; 10 amps. DC; 4 megs. 4 1/2" scales. Case with handle. 6  $\times$  7 1/2  $\times$  2 1/2". 11 lbs. NET.....\$21.56
- 84-556. 666 VOM.** Reads to 1,000 V. DC at 1,000 ohms per volt; 250,000 ohms. 300 ma DC. 3" meter. With battery and test leads. 3 1/2  $\times$  5 1/2  $\times$  2 1/2". 4 lbs. NET.....\$15.65
- 84-507. 1183 Tester.** A tube tester and VDM. Reads to 1,000 V. AC-DC; 10,000 ohms per volt; 250 ma DC; 1,000 ma AC; 100 ma DC. 14 1/2  $\times$  7 1/2  $\times$  4 1/2". NET.....\$53.74
- 84-551. 1200A VOM.** Reads to 1,000 V. DC at 2,000 ohms per volt; 250 ma; 3 megs.; 1,000 ma AC. Separate AC meter. 7 1/2  $\times$  6 1/2  $\times$  12 lbs. NET.....\$23.56
- 84-552. 1200C VOM.** 5,000 ohms per volt. Reads to 5,000 V. AC-DC; 10 amps. DC; 25 amps. AC; 7 1/2 megs. Has 250 microamp scale. 7 1/2  $\times$  6 1/2  $\times$  13 lbs. NET.....\$25.78
- 84-553. 1208E VOM.** 25,000 ohms per volt. Reads to 2,500 V. AC-DC; 10 amps. DC; 40 megs. 7 1/2  $\times$  6 1/2  $\times$  13 lbs. NET.....\$31.36
- 84-570. 1200F VOM.** 25,000 ohms per volt. Reads to 1,000 V. AC-DC; 250 ma DC. 30 megs. Push-button operated. 4" meter. 7 1/2  $\times$  6 1/2  $\times$  13 lbs. NET.....\$30.63
- 84-550. 1213 Dynamic Tube Tester.** Tests all tubes quickly and accurately. Has sensitive 3" meter. 11 1/2  $\times$  3 1/2  $\times$  12 1/2". 12 lbs. NET.....\$23.72
- 84-566. 1231A Battery-Operated Signal Generator.** 6 bands cover 115 KC to 30.5 MC on fundamentals. Individually shielded and calibrated coils. 345" dial. Includes GE 6X4 audio note. Handy field instrument; 22  $\times$  7  $\times$  6 1/2  $\times$  1 1/2". 13 lbs. NET.....\$29.66
- 84-565. 1232A Signal Generator.** Same as above, but 110 V. 60 cycles. NET.....\$32.18
- 84-501. 1270A Circuit Analyzer.** Reads to 4000 V. AC in 5 ranges; 0-260 MA. 0-6.5-13-26 A. AC; 0-130-260 V. AC. For primary power consumption measurements. Fuse protected. 4" meter. 7 1/2  $\times$  6 1/2  $\times$  5 1/2". NET.....\$32.18

### TRIPLETT (Cont'd)

- 84-536. 1280 Television Tester.** Reads to 10,000 V. DC at 25,000 ohms/V. and AC at 5,000 ohms/V.; 5,000 microamps DC. 6" meter. 7 1/2  $\times$  6 1/2  $\times$  5 1/2". 10 lbs. NET.....\$33.98
- 84-571. 1606E VOM.** 25,000 ohms per volt. Reads to 1,000 V. DC-AC; 500 ma DC; 20 megs. 7" meter. 15  $\times$  9  $\times$  4". NET.....\$27.51
- 84-872.** Same as above, but supplied less carrying case. NET.....\$22.64
- 84-508. 1613 Tube Tester.** Has 7" meter. 6-volt vibrator. Operator's eye. 42 lbs. NET.....\$37.57
- 84-509. 1612 Tube Tester.** Same as 1613 above, less cover. 38 lbs. NET.....\$32.18
- 84-513. 1620 Tube Tester.** A lever-switching, nonoscillation-proof tube tester with 7" meter. "Good-Bad" scale in colors. 18 1/2  $\times$  10 1/2  $\times$  6 1/2". 26 lbs. NET.....\$40.81
- 84-514. 1621 Tube Tester.** As above, but 4" meter. 12 1/2  $\times$  10 1/2". 27 lbs. NET.....\$37.57
- 84-507. 1632 Signal Generator.** 100 KC to 120 MC on fundamentals; modulated or unmodulated. Has input measuring meter. High accuracy and stability. 15  $\times$  9  $\times$  6 1/2". 31 lbs. NET.....\$86.08
- 84-510. 1672 Vibrator Tester.** Tests all 6-volt vibrators. Operates from 6 V. 7 1/2  $\times$  4 1/2". 21 lbs. NET.....\$32.18
- 84-504. 2000 Tester.** Reads 1,500 watts at 220 V. or 750 watts at 110 V. AC; 0-130-260 V. AC. 6 1/2  $\times$  4 1/2  $\times$  3 1/4". 9 lbs. NET.....\$20.84
- 84-505. 2091 Tester.** Same as 2000, but permits higher wattage readings with any 5 amp. current transformer. NET.....\$22.28
- 84-506. 2002 Tester.** Same as 2000, but reads to 10 amps; 3,000 watts. NET.....\$21.20

### HANDY "LITTLE TRIPLETT'S"

- Have 3" Lifetime Guaranteed "Red Dot" meters. 3 1/2  $\times$  5 1/2  $\times$  2 1/2". Red molded cases. 4-1-25-10-25-50. 670 AC Ammeter. Reads 0-1-2.5-10-25 amps. AC. For 60 cycle AC only.
- 84-521. 671 AC Milliammeter.** Reads 0-5-10-25-50-100-250-500-1,000 ma. AC.
- 84-522. 672 AC Voltmeter.** 3 ranges reading 0-150-300-750 volts AC.
- 84-523. 673 AC Voltmeter.** Rectifier type. 0-10-25-50-100-250-500-1,000 V. AC.
- 84-524. 674 DC Ammeter.** 5 ranges reading 0-1-2.5-5-10-25 amps. DC.
- 84-525. 675 DC Milliammeter.** Reads 0-1-5-10-25-50-100-250-500-1,000 ma. DC.
- 84-526. 676 DC Microammeter.** 0-50-100-250-500-1,000 microamps DC.
- 84-527. 677 DC Voltmeter.** 0-1-2.5-10-25-50-100-250-500-1,000 V. AC.
- 84-528. 678 Ohmmeter.** Reads 0-1,000-10,000 ohms. 0-1-1-10 megs. With battery. NET, EACH INSTRUMENT.....\$9.70

### MILLEN

- 72-010. 98505 Frequency Standard.** Produces secondary standard signals at 10, 25, 50, 100 and 1000 KC. Designed around GE G18 and G18A crystal, sealed in helium in a standard metal tube envelope and having a frequency temperature coefficient of less than 1 cycle/MC/C. Harmonic amplifier has tuned plate circuit and range switch. Signals good to 50 MC. 800 cycle modulator with switch. Voltage regulated volt. 100 V. 13 1/2  $\times$  13 1/2  $\times$  7 1/2". and crystal. Size: 9  $\times$  9 1/2  $\times$  10 1/2". Wt., 20 lbs. NET.....\$135.00

### NATIONAL

- 88-010. CRM 1" Oscilloscope.** Has 60 cycle, sweep also focus, and sweep-amplitude controls. 1" screen. 13 1/2  $\times$  13 1/2  $\times$  7 1/2". 1-6X5 rectifier. Size: 4 1/2  $\times$  6 1/2  $\times$  8". Wt. 9 lbs. NET.....\$12.21

### BROWNING

- 84-910. M-3 Frequency Meter.** For precision calibration of signals against WWV at 100-1000 KC. With battery. Size: 13 1/2  $\times$  13 1/2  $\times$  6 1/2". Wt. 14 lbs. NET.....\$43.02

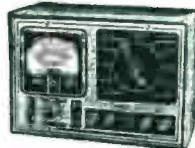
# ELECTRONIC TEST EQUIPMENT

## FOR LABORATORY, TRAINING SCHOOL AND INDUSTRY

The instruments listed on this and the three preceding pages have been especially selected for adaptability to the requirements of development laboratories, personnel training in schools and for industry. Most test equipment, like other apparatus essential to the war effort, is available

only to our Fisking Forces, Government Agencies, Industry, and Training Schools to whom priorities have been granted for the purchase of these units. Write or wire for details. See pages 7, 8 and 9 for complete listings of test equipment, or write, giving us your requirements in full.

### RADIO CITY PRODUCTS INSTRUMENTS



#### THE RADIO TRAINING SPECIAL

#### 423 VOLT-OHM-MILLIAMMETER

A sensitive multimeter of the volt-ohm-milliammeter type. The meter used has a 3" scale. The 395 microampere movement has an accuracy of 2% and a sensitivity of 2500 ohms per volt. The AC-DC volts ranges have a sensitivity of 1000 ohms per volt. Contains many outstanding and useful features not usually found in an instrument sold at this price. Has a center to full scale ratio of 125 on all ohms ranges, except low ohms scale reads 5 ohms center with 10 divisions reading 0.1 ohms each. All shunts and multipliers individually calibrated to a plus or minus 2% tolerance. Multipliers matched in pairs to overall accuracy of 1%. Ranges: 0.2-5-10-50-250-1000 DC volts; 0.10-50-250-1000 AC volts; 0.1-10-100-1000 DC millia; 0.50-100,000-1 meg.-10 megohms; -10 to +55 db. in four ranges. Complete with batteries, test leads, in a hardwood walnut-finished case with wire and tool compartment. Size, 7 1/2" x 5 1/4" x 3 1/2". Wt., 2 lbs.

**\$4-237. NET \$23.03**

**\$4-238. Model 423P.** Same instrument as Model 423 described above except furnished in a solid walnut hand-rubbed carrying case with hinged cover and handle. Equipped also with a pair of test leads. Size, 8" x 6" x 4 1/2". Wt., 4 lbs. **NET \$25.43**



#### NEW 446A AC-DC MULTITESTER

The new improved 446A has a 3-inch square D'Arsonval meter with bakelite case. Sensitivity 1000 ohms per volt. Ranges are as follows: 0.5-50-250-500-2500 volts DC; 0.1-10-100-1000 ma. DC; 0-10 amps. DC; 0.10-100-500-1000 volts AC; 0.500-100,000 ohms; 0.1 megohm; -8 to +15, +12 to +35, +26 to +49, +32 to +55 db., and 4 output ranges same as the 446 volts. The low range ohmmeter scale is of the low-drain backup type and reads as low as 0.1 ohm. Center of the scale reads 10 ohms. Selector switch on front panel. Case measures 3" x 4 1/2" x 3". Comes with self-contained batteries for ohmmeter ranges. Ship., wt., 4 lbs.

**\$4-241. NET \$13.18**



#### 418 AC-DC POCKET MULTITESTER

A handy pocket-size volt-ohm-milliammeter with a 3" meter scale. Ranges: 0.2-5-10-50-250-1000 volts AC and DC; also 0.1-10-100-1000 DC milliamperes. High ohms ranges read 0-100,000 ohms and 0.1 megohm. Low ohm range reads 0-500 ohms. All-volted type multiplier resistors matched in pairs to accuracy of 1%. Wood case 3 1/4" x 6 x 2 1/4".

**\$4-239. NET \$18.13**

**\$4-240. Model 418P AC-DC Pocket Multitester.** As above, except case has hinged cover and safety latch. Has compartment for test leads which are furnished. Size, 6 1/2" x 3 1/2" x 1 1/2". Wt., 3 1/2 lbs. **NET \$20.09**



#### 662 ELECTRONIC MULTITESTER

A vacuum-tube type multimeter having high input resistance on both AC and DC ranges. Ranges: 0.6-30-150-600-1500-6000 DC volts at 16 and 160 megohms; 0.1-6-30-150-600-6000 AC volts at 16 and 160 megohms, and only 0.0005 mfd. input capacity; 0-1000-10,000-100,000 ohms; 1 meg.-10 meg.-100 meg.-1000 megohm with lowest reading to 0.1 ohm; 0.0005 to 2000 mfd. in 7 ranges. Rugged welded metal case finished in crystalline gray. Size, 9 1/2" x 9 1/2" x 7 1/4". Complete with leads, batteries, tubes, and pilot light. For 110 V., 60 cycle AC operation. Wt., 8 lbs.

**\$4-232. NET \$46.55**



#### 703 SIGNAL GENERATOR

Continuously variable from 95 KC to 25 MC in 5 bands on fundamentals and to 100 MC on harmonics. Output unmodulated or modulated 30% at 400 cycles. Has provisions for applying external modulation from outside sweep circuit for oscilloscope work. Leakage eliminated by separate shielding of coil assembly, attenuator and RF circuits. Attenuation in approximate microvolts by five step ladder-type attenuator, 1 to 500,000. Power supply is electrostatically shielded and thoroughly filtered. Doubly fused. Size, 8" x 1 1/2" x 5". For 115 V., 50-60 cycles, 15 lbs.

**\$4-236. NET \$32.83**



#### MODEL BF-50

This instrument quickly and accurately measures important characteristics of all types of capacitors. Range from .00001 to 240 mfd. Will determine the exact condition of all paper, mica, and electrolytic capacitors, including AC motor starting capacitors. Employs a Wien bridge. For 115 volts, 50-60 cycles. With test leads, test tubes, requires 12A7 and 6F5. Size: 6 1/2" x 12" x 9 1/4". Ship., wt., 10 lbs.

**\$4-451. NET \$29.28**

#### ACCURATE CAPACITOR DECADES

Provide accurate standards over a wide range of capacity. Ideal for Scientists, Lab Technicians, Schools, etc. Have 600 V. DC—250 V. AC rating. May be used individually or in groups of two or three decades. They all incorporate high-quality capacitor standards. Each decade is furnished with an accuracy calibration chart giving exact capacity values for all scale markings, extending use to more precise measurements. Capacity tolerance is within  $\pm 5\%$ . Average ship., wt., 4 lbs.

| Stock No.       | Model | Ranges In Mfd.                          | NET           |
|-----------------|-------|-----------------------------------------|---------------|
| <b>\$4-452.</b> | CDA-5 | .0001 to .011 mfd. in .0001 mfd. steps. | <b>\$6.35</b> |
| <b>\$4-453.</b> | CDB-5 | .01 to 1.1 mfd. in .01 mfd. steps.      | <b>6.35</b>   |
| <b>\$4-454.</b> | CDC-5 | 1.0 to 10 mfd. in 1.0 mfd. steps.       | <b>11.25</b>  |

### PRECISION INSTRUMENTS



#### E200 SIGNAL GENERATOR

90 KC. to 88 MC in 6 bands. Direct-reading full-vision dial, 600 db. A vernier permits reading to 1 part in 1,000. Designed for Servicing by Signal Substitution, the E200 supplies AC voltage which is adjustable to the actual AVC voltage developed by the receiver. A switch provides 4 outputs, unmodulated RF, 400 cycle (0-100%), modulated RF, external modulated RF, and 400 cycle audio. Has calibrated RF attenuator. In black ripple-proof case. Size, 12" x 10 1/2" x 6". With tubes, star 115 V., 60 cycles, 20 lbs.

**\$4-409. NET \$43.07**

#### 832A 31-RANGE AC-DC TESTER

A new all-purpose test instrument at a remarkably low price. Incorporates all of the fine features found in Precision's line of testing equipment. Uses a large 3 1/2" meter with full length, easily read scales. A rotary selector switch makes instantly available the desired range. Two polarized pin jacks provide all measurements except high AC and DC voltages. Shunts and multipliers accurate to 1%. Ranges: 0.6-40-150-300-600-1,200 volts DC at 1,000 ohms per volt; 0.1-2-60-300-600-1,200-2,400 volts AC at 500 ohms per volt; 0.1-2-12-120-600 ma.; 0.5-500-500,000 ohms with self-contained battery, 0.5 megohms, with external battery; -10 to +62 db. Complete with internal battery. Walnut finished hardwood case. 7" x 4 1/2" x 3". 4 lbs.

**\$4-410. NET \$18.28**



### CORNELL-DUBILIER CAPACITOR ANALYZERS

#### MODEL BN BRIDGE

An ultra-compact condenser bridge for the efficient and Technician. Quickly and accurately measures the capacity of paper, mica, electrolytic, and air condensers from .00001 mfd. to 50 mfd. This instrument indicates by means of a visual eye tube the power factor of electrolytic condensers. Also has many other uses such as continuity meter or check test on defective condensers for opens, shorts, high, low power factor, etc. Walnut tool-box case. Size 3 1/2" x 5" x 3". Less tubes (12A7 and 6AF6G). For 115 volts, 60 cycles AC. Ship., wt., 3 lbs.

**\$4-450. NET \$11.64**





# TRIPLET PANEL METERS AND METER ACCESSORIES

## TRIPLET PRECISION PANEL METERS



A very popular line of accurate and fully dependable meters, offered in a variety of sizes and ranges. DC meters have rugged D'Arsonval movement, fully protected against vibration, and accurate within 2%. Polished jeweled bearings set in adjustable screws.

Dial scales finished in white enamel with easily read scales in black. Zero adjusting screw accessible from front of meters. Bakelite cases. Av. ship. wt., 1 1/2 lbs. Meters are available only on highest priorities for combat use under WPB order L 203.



### METER DIMENSIONS

| Model | Flange          | Body Dia. | Scale |
|-------|-----------------|-----------|-------|
| 221   | 2 1/4"          | 2 3/4"    | 1.72" |
| 227A  | 2 3/4" x 2 1/4" | 2 3/4"    | 1.72" |
| 231   | 2 1/4"          | 2 3/4"    | 1.54" |
| 237A  | 2 3/4" x 2 1/4" | 2 3/4"    | 1.54" |

| Model | Flange | Body Dia. | Scale |
|-------|--------|-----------|-------|
| 321   | 3 1/4" | 2 3/4"    | 2.37" |
| 327A  | 3 1/4" | 2 3/4"    | 2.37" |
| 331   | 3 1/4" | 2 3/4"    | 2.14" |
| 337A  | 3 1/4" | 2 3/4"    | 2.14" |

227A-327A DC  
237A-337A AC

### DC MILLIAMMETERS

| 321    | 327A   | EACH   | Ma.   | 221    | 227A   | EACH   |
|--------|--------|--------|-------|--------|--------|--------|
| 66-100 | 66-120 | \$5.04 | 0-1   | 66-150 | 66-170 | \$4.16 |
| 66-101 | 66-121 |        | 0-1.5 | 66-151 | 66-171 |        |
| 66-102 | 66-122 |        | 0-5   | 66-152 | 66-172 |        |
| 66-103 | 66-123 |        | 0-10  | 66-153 | 66-173 |        |
| 66-104 | 66-124 |        | 0-15  | 66-154 | 66-174 |        |
| 66-105 | 66-125 |        | 0-25  | 66-155 | 66-175 |        |
| 66-106 | 66-126 |        | 0-50  | 66-156 | 66-176 |        |
| 66-107 | 66-127 | \$4.16 | 0-100 | 66-157 | 66-177 | \$3.23 |
| 66-108 | 66-128 |        | 0-150 | 66-158 | 66-178 |        |
| 66-109 | 66-129 |        | 0-200 | 66-159 | 66-179 |        |
| 66-110 | 66-130 |        | 0-250 | 66-160 | 66-180 |        |
| 66-111 | 66-131 |        | 0-300 | 66-161 | 66-181 |        |
| 66-112 | 66-132 |        | 0-500 | 66-162 | 66-182 |        |
| 66-113 | 66-133 |        | 0-750 | 66-163 | 66-183 |        |

### AC AMMETERS

| 331    | 337A   | EACH   | Amps. | 231    | 237A   | EACH   |
|--------|--------|--------|-------|--------|--------|--------|
| 66-300 | 66-320 |        | 0-1   | 66-340 | 66-350 |        |
| 66-301 | 66-321 |        | 0-2   | 66-341 | 66-351 |        |
| 66-302 | 66-322 | \$4.16 | 0-3   | 66-342 | 66-352 | \$3.23 |
| 66-303 | 66-323 |        | 0-5   | 66-343 | 66-353 |        |
| 66-304 | 66-324 |        | 0-10  | 66-344 | 66-354 |        |
| 66-305 | 66-325 | \$5.04 | 0-25  | 66-345 | 66-355 | \$4.16 |
| 66-306 | 66-326 | 8.33   | 0-50  | 66-346 | 66-356 | 5.59   |
| 66-307 | 66-327 | 8.33   | 0-75  |        |        |        |

### DC VOLTMETERS

| 321    | 327A   | Volts | EACH   |
|--------|--------|-------|--------|
| 66-370 | 66-400 | 0-5   |        |
| 66-371 | 66-401 | 0-10  |        |
| 66-372 | 66-402 | 0-15  |        |
| 66-373 | 66-403 | 0-25  | \$4.16 |
| 66-374 | 66-404 | 0-50  |        |
| 66-375 | 66-405 | 0-100 |        |
| 66-376 | 66-406 | 0-150 |        |
| 66-377 | 66-407 | 0-250 | \$5.04 |
| 66-378 | 66-408 | 0-300 | 5.94   |
| 66-379 | 66-409 | 0-500 | 6.66   |

### DC AMMETERS

| 321    | 327A   | Amps. | EACH   |
|--------|--------|-------|--------|
| 66-440 | 66-450 | 0-1   |        |
| 66-441 | 66-451 | 0-5   |        |
| 66-442 | 66-452 | 0-10  | \$4.16 |
| 66-443 | 66-453 | 0-25  |        |
| 66-444 | 66-454 | 0-50  |        |
| 66-445 | 66-455 | 0-300 |        |

### AC VOLTMETERS

| 331    | 337A   | EACH   | Volts | 231    | 237A   | EACH   |
|--------|--------|--------|-------|--------|--------|--------|
| 66-201 | 66-221 |        | 0-10  | 66-251 | 66-271 |        |
| 66-202 | 66-222 | \$4.16 | 0-15  | 66-252 | 66-272 | \$3.23 |
| 66-203 | 66-223 |        | 0-25  | 66-253 | 66-273 |        |
| 66-204 | 66-224 |        | 0-50  | 66-254 | 66-274 |        |
| 66-205 | 66-225 | \$5.04 | 0-150 | 66-255 | 66-275 | \$4.16 |
| 66-206 | 66-226 | 5.94   | 0-300 | 66-256 | 66-276 | 5.23   |
| 66-207 | 66-227 |        |       | 66-257 | 66-277 |        |
| 66-208 | 66-228 | 7.90   | 0-500 | 66-258 | 66-278 | 7.18   |

Triplet meters are available only under priorities in the AA group. For fastest service please include highest possible rating when ordering.

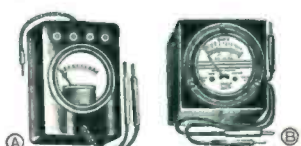
### (1000 Ohms Per Volt)

| 321    | 327A   | Volts | EACH   |
|--------|--------|-------|--------|
| 66-420 | 66-430 | 0-10  | \$5.94 |
| 66-421 | 66-431 | 0-150 | 6.31   |
| 66-422 | 66-432 | 0-300 | 7.18   |

### AC MILLIAMMETERS

| 331    | 337A   | Ma.   | EACH   |
|--------|--------|-------|--------|
| 66-470 | 66-490 | 0-10  | \$4.86 |
| 66-471 | 66-491 | 0-15  |        |
| 66-472 | 66-492 | 0-50  |        |
| 66-473 | 66-493 | 0-100 | \$4.16 |
| 66-474 | 66-494 | 0-250 |        |
| 66-475 | 66-495 | 0-500 |        |

## POCKET TEST INSTRUMENTS



### VOLT-OHMMETERS

Fig. A. MODEL 271 SIMPLEX. Scale is marked 0-1, 0-30, 0-300 volts DC, and 0-10,000 ohms. Attractively finished black bakelite case, 1 1/2" x 2 3/4" x 3 1/4". Two inch dial. Has pin jacks for quick selection of desired scale. Self-contained batteries included. With 30-inch polarized test leads and instructions. Ruggedly constructed. Ship. wt., 1 lb. \$4-300. NET. \$3.19

Fig. B. MODEL 10-N-300. 0-300 V. DC and 0-10,000 ohms. 2" dial. Ranges selected by means of jacks and a plug. Hardwood case. Size: 2 1/4" x 2 3/4" x 1 1/4". Uses 2 self-contained dry cells. With 24 leads and batteries. Very durably built. Wt., 1 lb. \$4-302. NET. \$2.49

### 412 VOLT-OHM-MILLIAMMETER

Incorporates moving vane type meter with 2" dial. Ranges: 0-30, 300 volts AC-DC, 0-5,000 ohms, 0-10,000 ohms, and 0-45 MA. AC-DC. Jacks provide easy range selection. Black hardwood case, 1 1/2" x 2 3/4" x 1 1/4". Less batteries and test leads. Ruggedly constructed to withstand hard usage. Wt., 1 lb. \$4-306. NET. \$4.95

### 421 PRECISION TYPE V.O.M.

A highly accurate, compact light weight instrument at a very moderate price. All scales calibrated to within 2%. Ranges: AC DC volts, 0-7.5-150-750; DC mills, 0-7.5-75; Resistance, 0-5,000-50,000 ohms. Scales designed for fast easy reading. Black plastic panel; black-crackle metal case. Size, 5 1/4" x 3 1/4" x 2 1/4". With battery. Wt., 5 lbs. \$4-308. NET. \$27.75

## CONTINENTAL CARBON TYPE A PRECISION RESISTORS

Precision one-watt carbon resistors, impregnated, and hermetically sealed in glass. For high resistance, voltmeter multipliers and circuits requiring real stability. 1 1/2" x 1/4" dia.

| Ohms  | Ohms | Ohms  | Ohms   | Ohms    |
|-------|------|-------|--------|---------|
| 100   | 4450 | 10000 | 75000  | 400000  |
| 200   | 4950 | 13500 | 85000  | 450000  |
| 400   | 5000 | 15000 | 90000  | 490000  |
| 500   | 5500 | 20000 | 100000 | 500000  |
| 1000  | 5950 | 25000 | 150000 | 600000  |
| 2000  | 7450 | 30000 | 200000 | 750000  |
| 3000  | 8500 | 40000 | 240000 | 800000  |
| *2950 | 8950 | 50000 | 250000 | 900000  |
| 3500  | 9950 | 60000 | 300000 | 1000000 |

\*These units allow for 50 ohms internal resistance of the milliammeter.  
1-960. Accuracy within 2%. EA. 29.  
1-980. Accuracy within 5%. EACH. 18c

## PORTABLE FRAME FOR 3" METERS

Metal frame for mounting 3" meters with 2 1/2" bodies. Baked black enamel finish. Completely drilled. Binding posts on top for connecting test leads. Overall height, 3 1/2"; width, 4"; depth at base, 3 1/4". Less meter. Ship. wt., 1 lb. \$6-506. NET. \$1.08

## HARDWOOD INSTRUMENT CASES

Open-face hardwood case for housing meter, test equipment, etc. Panel size, 4 1/2" x 8 1/2" x 3 1/4" overall. Walnut finish. Rubber bumper feet. Less panel. Ship. wt., 1 lb. \$6-210. NET. 98c

68-211. Sturdily built walnut-finished hardwood instrument case. Open face style, designed to take an 8 1/2" meter. Overall size, 8 1/2" x 4 1/2". Compact, easily portable. Equipped with strong leather carrying handle and rubber bumper feet. A truly deluxe unit. \$1.91 Ship. wt., 1 lb. NET.

## TRIPLET 7-INCH FOUNDATION KIT

DC scales read: 0-10-50-250-1000 V at 25,000 ohms per volt; 0-10-50-250 microamperes; 0-10-50-250 mA. DC; 0-0.02-2,000-200,000 ohms; 0-2 megohms. AC scale reads 0-10-50-250-1000 V at 1,000 ohms per volt. Figures in color. 3 lbs. 66-500. TYPE 726. NET. \$19.76

66-505. Essential Parts Kit for building complete AC-DC Volt-Ohm-Milliammeter from 66-500 meter above. With metal cabinet, test leads, and diagrams. 5 lbs. Wt., 5 lbs. NET. \$12.05

## COPPER-OXIDE RECTIFIERS

5 MA. CAPACITY  
Miniature type. Converts DC meters drawing less than 5 ma. to AC instruments. 1/4" x 1/2" x 1/4". 6 oz. 68-030. NET. \$2.59

20 MA. CAPACITY  
1/4" round, 1 1/4" long. Converts DC meters drawing not over 20 ma. to AC. 68-031. NET. \$1.95

68-032. 50 MA Capacity. 1" dia.; 1 1/4" long. Heavy-duty type for use where currents may be as high as 50 ma. NET. \$1.75

## CONANT RECTIFIERS

Type B. Full-wave rectifier. Input 10 volts R.M.S.; output 5 ma. Size, 1/4" x 1/2" x 1/4". 6 oz. 68-040. NET. \$2.06

## TYPE "M"

Miniature full-wave rectifier for converting DC meters for AC use. Input 10 volts RMS; output 30 ma. 6 oz. 68-041. NET. \$2.06

68-042. Type "H". Half-wave rectifier. Input, 5 volts R.M.S.; output, 30 ma. Diameter, 1/4"; overall length, 1 1/4". With 6-32 mtg. screw and 3" leads. Ship. wt., 6 oz. NET. 88c

# Readrite

# PANEL METERS AND METER ACCESSORIES



Less Zero Adj.



Zero Adjustment

## READRITE PANEL METERS MODEL 55

Efficient, ruggedly constructed and low-priced. Accuracy within 5%. DC meters are polarized vane, solenoid type. Require 2 1/2" mounting hole. Have easy-reading white dial and nickel-finish metal shell. Case includes to hold meter tight against panel. Standard terminals protrude from rear of case. Easy to mount and hook-up. 2 1/2" diameter rim. For outside flange mounting use No. 65A flange ring below. Average shipping weight, 1 lb.

## MODEL 95

Here is an important addition to the popular Readrite line. Accuracy within 5%. A splendid type of meter for classroom demonstrations where it is impractical to use high priced models. The 95 is housed in a black lacquer-finished square case. Very sturdy. Measures 2 3/4" x 2 1/4". Requires a 2 1/2" mounting hole.



Less Zero Adj.

### DC VOLTMETERS

| Volts     | Resist. Ohms | MODEL 55                |                      | MODEL 95                |                      |
|-----------|--------------|-------------------------|----------------------|-------------------------|----------------------|
|           |              | Without Zero Adjustment | With Zero Adjustment | Without Zero Adjustment | With Zero Adjustment |
| Stock No. | NET Each     | Stock No.               | NET Each             | Stock No.               | NET Each             |
| 0-1       | 18           | 67-000                  | 67-050               | 67-100                  |                      |
| 0-3       | 1.15         | 67-001                  | 67-051               | 67-101                  |                      |
| 0-3       | 250          | 67-002                  | 67-052               | 67-102                  | 88c                  |
| 0-5       | 110          | 67-003                  | 67-053               | 67-103                  |                      |
| 0-6       | 550          | 67-004                  | 67-054               | 67-104                  |                      |
| 0-8       | 850          | 67-005                  | 67-055               | 67-105                  |                      |
| 0-10      | 1475         | 67-006                  | 67-056               | 67-106                  | 88c                  |
| 0-15      | 2700         | 67-007                  | 67-057               | 67-107                  | \$1.00               |
| 0-25      | 1625         | 67-008                  | 67-058               | 67-108                  | 1.15                 |
| 0-50      | 3250         | 67-010                  | 67-060               | 1.00                    | 1.06                 |
| 0-100     | 6500         | 67-012                  | 67-062               | 1.15                    | 1.21                 |
| 0-100     | 30888        | 67-013                  | 67-063               | 2.29                    | 2.35                 |
| 0-150     | 9750         | 67-014                  | 67-064               | 1.32                    | 1.38                 |
| 0-100     | 92640        | 67-016                  | 67-066               | 2.29                    | 2.35                 |
| 0-500     | 154400       | 67-017                  | 67-067               | 3.15                    | 3.15                 |
| 0-50      | 214600       | 67-018                  | 67-068               | 3.73                    | 3.79                 |
| 0-15-60   |              |                         |                      |                         |                      |
| 300-600   | 180000       | 67-021                  | 67-071               | 3.73                    |                      |

### DC AMMETERS

| Amps.   | Type | MODEL 55  |          | MODEL 95  |          |
|---------|------|-----------|----------|-----------|----------|
|         |      | Stock No. | NET Each | Stock No. | NET Each |
| 0-1     | 380  | 67-130    | 67-150   | 67-180    |          |
| 0-3     | 336  | 67-131    | 67-151   | 67-181    |          |
| 0-5     | 381  | 67-132    | 67-152   | 67-182    | 88c      |
| 0-10    | 338  | 67-133    | 67-153   | 67-183    |          |
| 0-25    | 382  | 67-134    | 67-154   | 67-184    | \$1.21   |
| 0-50    | 383  | 67-135    | 67-155   | 67-185    | 1.71     |
| 1-0-1   | 101  | 67-136    | 67-156   | 67-186    |          |
| 3-0-3   | 303  | 67-137    | 67-157   | 67-187    |          |
| 6-0-6   | 606  | 67-138    | 67-158   | 67-188    |          |
| 10-0-10 | 110  | 67-139    | 67-159   | 67-189    | 88c      |
| 20-0-20 | 220  | 67-140    | 67-160   | 67-190    |          |
| 30-0-30 | 430  | 67-141    | 67-161   | 67-191    | \$1.53   |
| 50-0-50 | 550  | 67-142    | 67-162   | 67-192    | 1.71     |

### DC MILLIAMMETERS

| Ma.   | Resist. Ohms | MODEL 55  |          | MODEL 95  |          |
|-------|--------------|-----------|----------|-----------|----------|
|       |              | Stock No. | NET Each | Stock No. | NET Each |
| 0-5   | 2160         | 67-200    | \$1.47   | 67-226    | \$1.65   |
| 0-10  | 1080         | 67-201    | 1.29     | 67-221    | 1.47     |
| 0-15  | 720          | 67-202    | 65       | 67-222    | .82      |
| 0-25  | 432          | 67-203    | 65       | 67-223    | .82      |
| 0-30  | 360          | 67-204    | 67-224   | 67-224    |          |
| 0-40  | 270          | 67-205    | 67-225   | 67-225    |          |
| 0-50  | 216          | 67-206    | 67-226   | 67-226    |          |
| 0-100 | 108          | 67-207    | 67-227   | 67-227    |          |
| 0-150 | 72           | 67-208    | 67-228   | 67-228    |          |
| 0-200 | 54           | 67-209    | 67-229   | 67-229    |          |
| 0-300 | 36           | 67-210    | 67-230   | 67-230    |          |
| 0-400 | 27           | 67-211    | 67-231   | 67-231    |          |

### AC VOLTMETERS\*

| Volts    | No.    | MODEL 55  |          | MODEL 95  |          |
|----------|--------|-----------|----------|-----------|----------|
|          |        | Stock No. | NET Each | Stock No. | NET Each |
| 0-4      | 67-270 | 51.79     | 67-300   | 52.03     |          |
| 0-6      | 67-271 | 1.79      | 67-301   | 2.03      |          |
| 0-10     | 67-272 | 1.79      | 67-302   | 2.03      |          |
| 0-15     | 67-273 | 1.79      | 67-303   | 2.03      |          |
| 0-150    | 67-274 | 2.91      | 67-304   | 3.35      |          |
| 0-300    | 67-275 | 3.56      | 67-305   | 3.79      |          |
| 0-600    | 67-276 | 4.20      | 67-306   | 4.44      |          |
| 0-750    | 67-277 | 5.03      | 67-307   | 5.26      |          |
| 0-10-140 | 67-278 | 2.91      | 67-308   | 3.35      |          |

### PLUG-IN LINE TYPE

|              |      |  |  |
|--------------|------|--|--|
| 0-150-67-280 | 2.91 |  |  |
|--------------|------|--|--|

### 65A FLANGE RING

A sturdy flange ring for use with any Model 55 Readrite meter where a flange mount is preferred. Wide flange. 2 1/2" dia. Telephone black finish. 67-380. NET 12c

### AC MILLIAMMETERS\*

| Ma.   | No.    | MODEL 55  |          | MODEL 95  |          |
|-------|--------|-----------|----------|-----------|----------|
|       |        | Stock No. | NET Each | Stock No. | NET Each |
| 0-25  | 67-350 |           |          | 67-360    |          |
| 0-50  | 67-351 |           |          | 67-361    |          |
| 0-100 | 67-352 | \$1.79    | 67-362   | \$2.03    |          |
| 0-250 | 67-353 |           |          | 67-363    |          |
| 0-500 | 67-354 |           |          | 67-364    |          |

### AC AMMETERS\*

| Amps. | No.    | MODEL 55  |          | MODEL 95  |          |
|-------|--------|-----------|----------|-----------|----------|
|       |        | Stock No. | NET Each | Stock No. | NET Each |
| 0-1   | 67-320 |           |          | 67-330    |          |
| 0-3   | 67-321 | \$1.79    | 67-331   | \$2.03    |          |
| 0-5   | 67-322 |           |          | 67-332    |          |
| 0-10  | 67-323 |           |          | 67-333    |          |
| 0-50  | 67-324 | 2.44      | 67-334   | 2.68      |          |

\*Double-vane repulsion type.

Meters are available only on priority. Please include your priority with your order.

### READRITE POCKET VOLT-OHM-MILLIAMMETERS



MODEL 739 AC-DC

The Model 739 is a pocket-type volt-ohm-milliammeter with AC and DC ranges. It uses a precision Triplett 3-inch square "Red Dot" Lifetime guaranteed meter. Movement has two high-quality sapphire jewel bearings. Ranges are: 0-15-150-750-1,500 volts DC with a sensitivity of 1,000 ohms per volt; 0-15-150 ma. (shunt-type circuit); center of scale reads 25 ohms; 0-500-ohm ohms (series-type circuit); 0-1.5-15-150 ma. DC. External batteries may be used for higher resistance measurements. Molded case; 3 1/4" x 5 1/4" x 2 1/4". With test leads, alligator clips and battery. Ship. wt., 5 lbs. 84-703. NET \$10.67

### MODEL 738 DC

A pocket volt-ohm-milliammeter for DC voltage, current, and resistance measurements. Uses a 3" Triplett "Red Dot" Lifetime guaranteed meter. Reads: 0-15-150-750-1,500 volts DC at 1,000 ohms per volt; 0-1.5-15-150 ma. DC; 0-500-500-ohm ohms. Pocket size molded black case; 3 1/4" x 5 1/4" x 2 1/4". Silver and black panel. With test leads, alligator clips, and battery. Ship. wt., 5 lbs. 84-704. NET \$8.08

### POCKET DC VOLT-OHM-METER

Readrite 510 pocket-size meter for DC voltage and resistance testing. Uses a square Readrite meter with full open dial. Reads 0-300 V. DC and 0-10,000 ohms. Wood case, 2 1/2" x 2 1/4" x 2". Furnished with test-leads and self-contained 3 volt battery for ohm meter circuit. Ship. wt., 3 lbs. 84-706. NET \$2.44



### RESISTANCE WIRE ON HANDY SPOOLS

High-grade alloy wire for use in constructing extra-sensitive test apparatus. meters, etc. Sleeve-protected spool prevents wire from rusting or tangling. Convenient small quantities and wide variety meet all needs. Ship. wt., 8 oz., per spool.

| Wire Size | Ohms Per Ft. | BARE   |      | DSC    |     |
|-----------|--------------|--------|------|--------|-----|
|           |              | No.    | Ft.  | No.    | Ft. |
| 14        | 0.00318      | 49-700 | 24   | 49-730 | 18  |
| 16        | 0.07318      | 49-701 | 48   | 49-731 | 24  |
| 18        | 1.164        | 49-702 | 48   | 49-732 | 20  |
| 20        | 1.850        | 49-703 | 81   | 49-733 | 40  |
| 22        | 2.941        | 49-704 | 126  | 49-734 | 77  |
| 24        | 4.678        | 49-705 | 190  | 49-735 | 79  |
| 26        | 7.438        | 49-706 | 277  | 49-736 | 96  |
| 28        | 1.183        | 49-707 | 309  | 49-737 | 113 |
| 30        | 1.879        | 49-708 | 360  | 49-738 | 138 |
| 32        | 2.990        | 49-709 | 765  | 49-739 | 155 |
| 34        | 4.756        | 49-710 | 1092 | 49-740 | 180 |
| 36        | 7.560        | 49-711 | 1482 | 49-741 | 208 |
| 38        | 12.02        | 49-712 | 1881 | 49-742 | 231 |
| 40        | 19.11        | 49-713 | 2308 | 49-743 | 261 |

EACH SPOOL NET 39c

### RESISTANCE METER

#### MODEL 501

Direct reading: 0-10,000 ohms, 0-4 1/2 volts. Measures resistance and checks continuity in radio and electrical circuits. Requires 3 small flashlight cells. 10 oz. 67-386. NET 97c



### UNWIRED UNIVERSAL ADAPTERS

Fits almost every model. The top consists of a standard bakelite sock t. Any top and any bottom with 61-575 or 61-576 shell will make the adapter you need. The adapter shell is brass, finished in black. It is 1 1/2" long. Wt., 6 oz.



#### SOCKET (Top)

|                               |      |
|-------------------------------|------|
| 40-054. 4 Holes               | EACH |
| 40-055. 6 Holes               | 61c  |
| 40-057. 7S                    |      |
| 40-058. 8 Octal               | .8c  |
| 40-060. Lokal                 | 10c  |
| 61-556. For Hytron Bantam Jr. | 15c  |
| 61-557. For RCA Miniatures    | 15c  |

#### PLUG (Bottom)

|                                                                 |      |
|-----------------------------------------------------------------|------|
| 61-570. 4 Prom.                                                 | EACH |
| 61-571. 5 Prom.                                                 | 61c  |
| 61-572. 6 Prom.                                                 |      |
| 61-573. 7S                                                      |      |
| 61-574. 8 Octal                                                 | .8c  |
| 61-575. Adapter Shell                                           | .9c  |
| 61-576. Same as above but with side hole for bringing out leads | 12c  |



# BATTERIES • PACKS • ACCESSORIES



## BURGESS STANDARD DRY BATTERIES

ALLIED's stock of Batteries is always fresh, assuring you of full-rated service. Burgess quality means absolute dependability. Explanation of terminals: S.C.—spring clips; S.T.—screw terminals.

Because some batteries may not be available without priority, please submit priority rating whenever possible.

| Stock No.                     | Burgess No. | Terminals | Volts | Shpg. Wt. | Size      | NET EACH |
|-------------------------------|-------------|-----------|-------|-----------|-----------|----------|
| <b>STANDARD "B" BATTERIES</b> |             |           |       |           |           |          |
| 80-501                        | 21308SC     | S.C.      | 45    | 15        | 7½x8½x4½" | \$2.23   |
| 80-505                        | 10308SC     | S.C.      | 45    | 13        | 7½x8x4"   | 2.05     |
| 80-507                        | 2308SC      | S.C.      | 45    | 9½        | 7½x8x2½"  | 1.34     |
| 80-508                        | 5308        | S.T.      | 45    | 4         | 5½x4½x2½" | 1.16     |

|                               |        |      |     |    |           |        |
|-------------------------------|--------|------|-----|----|-----------|--------|
| <b>STANDARD "C" BATTERIES</b> |        |      |     |    |           |        |
| 80-510                        | 4156   | S.T. | 22½ | 1½ | 3½x3½x2½" | \$0.64 |
| 80-512                        | 5156SC | S.C. | 22½ | 2  | 3½x4½x2½" | .72    |
| 53-032                        | 2370SC | S.C. | 4½  | 1½ | 3½x2½x1½" | .30    |
| 80-514                        | 5540   | S.T. | 7½  | 1  | 1½x4x2½"  | .48    |
| 80-515                        | 5360   | S.T. | 4½  | ¾  | 1½x2½x1½" | .31    |

|                                  |       |            |     |    |            |        |
|----------------------------------|-------|------------|-----|----|------------|--------|
| <b>SPECIAL-PURPOSE BATTERIES</b> |       |            |     |    |            |        |
| 80-517                           | Z30N  | S.T.       | 45  | 1½ | 1½x1½x4½"  | \$1.27 |
| 80-518                           | X30FL | Wire leads | 45  | 1  | 12½x1½x4½" | 1.75   |
| 80-520                           | A30BP | S.T.       | 45  | 2½ | 4½x4½x3¾"  | 1.27   |
| 80-521                           | W5BP  | S.T.       | 7½  | ½  | 2½x1½x1½"  | .70    |
| 80-524                           | Z30BP | S.T.       | 45  | 1½ | 3x1½x4½"   | 1.50   |
| 80-525                           | Z30BP | S.T.       | 45  | 1½ | 3½x2½x3¾"  | 1.35   |
| 53-016                           | F4BP  | S.T.       | 6   | 1½ | 2½x2½x1½"  | .40    |
| 53-017                           | 2F2H  | S.T.       | 3   | 1½ | 2½x2½x3¾"  | .40    |
| 53-018                           | F2BP  | S.T.       | 3   | 1  | 2½x1½x4½"  | .34    |
| 53-019                           | A15ST | S.C.       | 22½ | 2  | 2½x3½x2½"  | .66    |

| IGNITION, LANTERN AND TELEPHONE BATTERIES |             |       |            |                        |          |
|-------------------------------------------|-------------|-------|------------|------------------------|----------|
| Stock No.                                 | Burgess No. | Volts | Shpg. Wt.  | Size                   | NET EACH |
| 53-028                                    | F4H         | 6     | 1 1/2 lbs. | 2 1/2 x 2 1/2 x 3 3/4" | \$0.39   |
| 53-024                                    | 4F1H        | 1 1/2 | 1 lb.      | 2 1/2 x 2 1/2 x 3 3/4" | .30      |
| 53-027                                    | 4F2H        | 3     | 3 lbs.     | 2 1/2 x 3 1/2 x 5 1/2" | .70      |
| 53-025                                    | 4F2H        | 6     | 7 lbs.     | 2 1/2 x 4 1/2 x 5 1/2" | 1.41     |
| 53-033                                    | 4F6H        | 6     | 10 lbs.    | 4 x 8 x 6"             | 2.17     |
| 53-034                                    | 4F2J        | 3     | 3 lbs.     | 2 1/2 x 3 1/2 x 5 1/4" | .65      |

## TUBULAR FLASHLIGHT UNI-CELLS

|                                                              |                                                                   |                                      |    |
|--------------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------|----|
| 53-029, No. 1, 1½<br>volts. Size: 1½x1".<br>Baby type, 2 oz. | 53-009, No. 2, 1½<br>volts. Size: 2½x1½".<br>Standard type, 4 oz. | No. 1 or<br>No. 2 Cell.<br>EACH..... | 6½ |
|--------------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------|----|

|                                                        |         |
|--------------------------------------------------------|---------|
| 53-031, Z. 1-Cell Penlight Battery, 1½"x¾". Wt., 2 oz. | .....4c |
|--------------------------------------------------------|---------|



## BURGESS TYPE XX45 BATTERY

67.5 volt "B" battery. Replaces Eveready 467. Extremely light in weight. Available only on military orders with required priority rating. Snap-on connections. Size, 2½x1½x3¼". Wt., ¾ lb.

80-544. NET \$1.60



## STERLING BATTERY TESTER FOR STANDARD BATTERIES

Available in 4 types listed. For testing general duty storage and dry cell batteries.

|                                                        |     |
|--------------------------------------------------------|-----|
| 78-020. Storage Battery Tester.....                    | 73c |
| 78-021. 0-35 Amps. For Dry Cells.....                  | 59c |
| 78-022. 0-50 Volts. "B" Tester.....                    | 59c |
| 78-023. Combination 0-35 Amp. and 0-50 Volts. NET..... | 89c |

## FOR PORTABLE BATTERIES

As above, but in ranges more convenient for portable-radio batteries. Dual-coil construction with resistance loads.

|                                      |        |
|--------------------------------------|--------|
| 78-024. 0-50 Volts, 0-2 Volts.....   | \$1.47 |
| 78-025. 0-100 Volts, 0-2 Volts.....  | 1.62   |
| 78-026. 0-150 Volts, 0-2 Volts.....  | 1.62   |
| 78-027. 0-150 Volts, 0-10 Volts..... | 1.76   |

Watch-case type testers for "B" Batteries, Dry Cells, Storage Batteries, etc. Durable and accurate. Average shpg. wt., 1 lb.

## G. E. MAZDA TYPE L SEALED BEAM LAMPS

Standard G. E. Mazda type L lamps. Genuine replacements for 1940-42 cars equipped with sealed beam lights. Base has 3-contact lugs. Size, ¾" dia., 3¼" overall. Shpg. wt., 2 lbs.

| No.    | Type | Volts | EACH   | 8 For  |
|--------|------|-------|--------|--------|
| 52-389 | 4030 | 6-6   | \$0.88 | \$5.28 |
| 52-390 | 4430 | 12-16 | 1.36   | 8.16   |

The War Production Board has limited the manufacture of dry batteries to a minimum number of types. Batteries for portable radios will not be made for the duration of the war. Dry batteries for farm sets and flashlight cells are being produced in limited quantities and will be available without priorities as long as regulations permit. Our battery stocks are always fresh.

## KNIGHT PLUG-IN DRY BATTERIES

Only the highest quality materials are used in the making of Knight batteries. Each Knight battery is scientifically protected against internal shorts by a unique sealing method. These batteries are designed for a long and full life. For maximum battery value—buy Knight. Our quick turnover assures you of constantly fresh stocks of all Knight battery types. Our low prices assure you of bigger savings and bigger profits. \*Plug-in batteries do not include plugs. See plugs listed below.



| Stock No. | Type           | Volts | Size     | Shpg. Wt. | NET EACH |
|-----------|----------------|-------|----------|-----------|----------|
| 80-800    | *Standard      | 45    | 7½x6x3"  | 10 lbs.   | \$1.21   |
| 80-801    | *Heavy-Duty    | 45    | 6½x7½x4" | 12 lbs.   | 1.65     |
| 80-802    | *"B" or "C"    | 22½   | 4x2½x2½" | 2 lbs.    | .69      |
| 80-803    | *"C"           | 4½    | 4x3x1½"  | 1 lb.     | .29      |
| 80-804    | No. 6 Dry cell | 1½    | 6x2½"    | 2 lbs.    | .29      |

## POPULAR "GENERAL" FLASHLIGHT CELLS

80-725. No. 1, Midget Cell. 1½V., 1 x 1¼". Wt., 2 oz.  
80-726. No. 2, Standard Cell. 1½V., 1½ x 2¼". Wt., 4 oz.

## SPECIAL PURPOSE BATTERY PLUGS



## FIT POPULAR PLUG-IN TYPE DRY BATTERIES

All are plug-in types except Figs. H and F, which are snap-on types.

| No.    | Fig. | Type | Description             | NET EACH |
|--------|------|------|-------------------------|----------|
| 54-000 | A    | 2793 | 2-prong 6V. "A."        | 5c       |
| 54-005 | A    | 200  | 2-prong 3V. "A."        |          |
| 54-001 | B    | 273  | 3-prong portable "A/B." |          |
| 54-002 | C    | 120  | 4-prong 1½/90 "A/B."    |          |
| 54-003 | D    | 274  | 2-prong 1½/90 "A."      |          |
| 54-004 | E    | M64  | 4-prong 6/90 "A/B."     |          |
| 54-006 | G    | 2767 | 3-prong 60V. "B."       |          |
| 54-007 |      | 2792 | 2-prong 4V. "A."        |          |
| 54-008 |      | M77  | 3-prong 7½V. "A."       |          |
| 54-009 |      | 5705 | 4-prong Zenith "A&B"    |          |
| 54-010 |      | 2745 | 4-prong Philco "A&B"    | 4c       |
| 54-011 |      | 2900 | 4-prong 7½/90 "A/B."    |          |
| 54-012 |      | 2776 | 5-prong 6/90 "A/B."     |          |
| 54-013 |      | 2791 | 4-prong 6/90 "A/B."     |          |

54-065, F Male For Eveready 467 and Burgess XX45.

54-066, F Female For Eveready 467 and Burgess XX45.

## STANDARD BATTERY PLUGS

Fit Burgess, General, Knight, and Ray-O-Vac standard batteries. 3 oz.

|                                              |               |    |
|----------------------------------------------|---------------|----|
| 54-050. Connector for all 45 volt batteries. | NET EACH..... | 4c |
| 54-051. Connector for 22½ volt batteries.    |               |    |
| 54-052. Connector for 7½ volt batteries.     |               |    |
| 54-053. Connector for 4½ volt batteries.     |               |    |

54-054. Connector for 3 volt "A" batteries.

## POPULAR FARM-SET PACKS

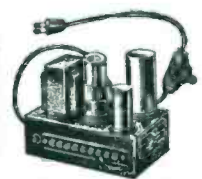
Quality battery-packs, especially designed and constructed for dependable operation in battery-type farm sets. The three models listed are interchangeable. Meet all requirements. Available only in limited quantities. We reserve the right to ship type on hand at time order is received. Wt., 22 lbs.

|                                        |        |
|----------------------------------------|--------|
| 80-572. Burgess 17GD60. NET.....       | \$4.36 |
| 80-552. Ray-O-Vac AB82. NET EACH.....  | \$4.16 |
| 80-836. General 60DL11L. NET EACH..... |        |



## GTC MODEL L FARM-TYPE PORTA-POWER

For 2, 2.5, or 3-volt radios, having from 4 to 8 tubes. Eliminates all "A," "B," and "C" batteries. Operates from 65-125 V., 50-60 cycle AC. Drives 67.5, 90, 112.5, and 135 V. of "B," and from 1.5 to 22.5 adjustable "C." The "B" section can be adapted to supply 45 volt also. Size, 6½"x4"x3¼". With instructions. Screw terminals. Requires approximately 30 watts of power to operate. Shpg. wt., 6 lbs.



80-172. NET.....\$7.35

# CONVERTERS • BATTERIES • CHARGERS

## POPULAR ATR RADIO INVERTERS—DC TO AC



Delivers 110 volt 60 cycle AC electric power from 6 or 12 volt batteries. 32 volt, 110 volt, or 220 volt DC systems. These inverters are designed especially for interference-free operation of AC all-wave radios, PA systems, radio-photograph combinations, test equipment, and similar units from DC voltages in cars, boats, trains, farms and in DC districts. Plug-in vibrator has 1/2-inch diameter contacts which assure long life and reliable service. Features include: 4-point voltage regulator, fuse protection, on-off switch, metal case, etc. Supplied complete with filter which eliminates "ripple" and "hash," thus assuring quiet performance. Sizes: RSA 7 1/2" x 8 1/2" x 4 1/2"; RIA 7 1/2" x 8 1/2" x 5 1/2". Complete with cord and plug.

### RADIO TYPE WITH FILTER

| Stock No. | Mfrs. Type | Input DC Volts | 60 Cycle AC | Watts Cont. | Inter. | Wt. Lbs. | List    | NET EACH |
|-----------|------------|----------------|-------------|-------------|--------|----------|---------|----------|
| 80-000    | 6-RSA      | 6              | 110V.       | 75          | 85     | 16       | \$28.95 | \$17.02  |
| 80-001    | 12-RSA     | 12             | 110V.       | 100         | 125    | 16       | 28.95   | 17.02    |
| 80-002    | 32-RSA     | 32             | 110V.       | 100         | 150    | 16       | 29.95   | 17.51    |
| 80-003    | 12B-RHA    | 32             | 110V.       | 180         | 200    | 25       | 42.00   | 24.70    |
| 80-004    | 110-RSA    | 110            | 110V.       | 150         | 250    | 16       | 29.95   | 17.61    |
| 80-005    | 110A-RHA   | 110            | 110V.       | 225         | 325    | 25       | 39.50   | 23.23    |
| 80-006    | 110B-RHA   | 110            | 110V.       | 350         | 500    | 25       | 49.50   | 29.11    |
| 80-007    | 110C-RSA   | 110            | 110/220V.   | 150         | 250    | 16       | 37.50   | 22.05    |
| 80-008    | 110D-RSA   | 110/220        | 110/220V.   | 150         | 250    | 16       | 39.50   | 23.23    |
| 80-009    | 220-RSA    | 220            | 110V.       | 150         | 250    | 16       | 29.95   | 17.61    |

## ELECTRONIC CONVERTERS



Permits DC operation of AC appliances, radio sets, amplifiers, test equipment, fans, etc. Ruggedly constructed. Dependable and long lived. Size: 8 1/2" x 6 1/2" x 4 1/2". Operates 110 V. type which is 109% x 5 1/2" x 6". Average ship. wt., 15 lbs.

| Stock No. | DC Volts | Input Amps. | AC Output Volts | Watts | NET     |
|-----------|----------|-------------|-----------------|-------|---------|
| 80-120    | 6        | 14.7        | 110             | 75    | \$21.56 |
| 80-121    | 12       | 10          | 110             | 100   | 21.56   |
| 80-122    | 32       | 3.7         | 110             | 100   | 17.64   |
| 80-123    | 110      | 1.6         | 110             | 150   | 25.16   |

### TYPE 490 VIBRATOR

56-185. For replacement purposes in Knightr Mobile 6V-110V. 30 Watt Universal Sound Systems. **\$7.84**

## MALLORY VIBRAPACKS

### TYPE VP



Vibrator type power units for portable radios, transmitters, PA systems, etc. Operate from 6 V. storage battery; max. output 100 ma. Models 551, 552, G556, self-rectifying. Tube rectifiers supplied with all others. Low filter. **High Output Type:** VP-555 supplies 200 ma.; VP-557, 150 ma.; VP-G556 operates on 12.6 V., and VP-F558 on 32 V. Both supply 100 ma. Average shipping wt. 10 lbs.

| No.    | Type    | Output Voltage     | EACH    |
|--------|---------|--------------------|---------|
| 80-100 | VP-551F | 125-150-175-200    | \$10.13 |
| 80-101 | VP-552F | 225-250-275-300    | 12.35   |
| 80-102 | VP-553F | 125-150-175-200    | 10.77   |
| 80-103 | VP-554F | 225-250-275-300    | 12.97   |
| 80-104 | VP-555F | 300                | 25.32   |
| 80-105 | VP-557F | 400                | 25.32   |
| 80-106 | VP-G556 | 225-250-275-300    | 12.97   |
| 80-107 | VP-F558 | 225-250-275-300    | 13.61   |
| 80-108 | VP-223  | Single Unit Filter | 5.06    |

## MALLORY FILTERED TYPE VIBRAPACK



Complete "B" power unit for any electronic device operating 250 V. DC with 60 ma. drain; powered from 6 V. storage battery. For auto, marine and airplane broadcast or short-wave receivers. Ideal for mobile, police receivers. Self-rectifying vibrator is fully filtered. 7 1/2" x 3 1/2" x 5 1/2". Ship. wt., 9 lbs. **56-109. Type VP540. NET. \$13.23**

Send for Mallory Vibrapack Bulletin. 37-025. Mallory E555C Bulletin. FREE

## GENUINE G. E. TUNGAR CHARGER

High-grade 5 amp. unit for low cost charging of any type 6-volt storage battery directly from the supply line. Famous General Electric quality construction. Delivers full 5-ampere rate to keep battery fully charged; automatic tapering feature prevents overcharging. Supplied with tungar bulb, and full instructions. For 115 Volts, 60 cycle AC. Ship. weight, 13 lbs. **80-027. NET. \$12.25**



## KNIGHT STORAGE BATTERIES

Highest quality storage batteries for radio equipment, low-voltage lighting systems, etc. Only finest materials are used. Wing-nut clamps on terminal posts. 98-010 is ideal for farm lighting plants. Shipped by freight or express.



### 2 VOLT BATTERIES

| Stock No. | Plates | A. H. | Wt. | NET    |
|-----------|--------|-------|-----|--------|
| 98-000    | 13     | 115   | 10  | \$3.25 |
| 98-001    | 21     | 150   | 23  | 4.35   |

### 6 VOLT BATTERIES

| 98-005 | 13 | 95  | 80 | \$5.95 |
|--------|----|-----|----|--------|
| 98-006 | 15 | 121 | 42 | 7.50   |
| 98-010 | 21 | 150 | 58 | 10.90  |

## LEADER HYDROMETER



Accurate, well-made hydrometer for testing storage batteries. Has beaded float. Bulb is of live, resilient rubber. Ship. wt., 1 lb. **78-008. NET. \$3.00**

## MALLORY RECTIFIERS

For battery chargers and boosters. Also ideal power source for battery radio demonstration, coin machines, relays, etc. Univ. mig. Average wt., 3 lbs.



**56-170. Type IB12CMB. Replaces 12C1, F12C1B, 12C1F, F12C1C, IB12CX1, X112, X12, U12, 3C Booster. \$3.46**

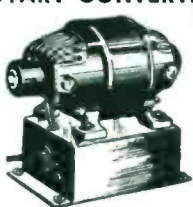
**NET. \$3.46**  
**56-171. Type F16C3MB. Replaces 16C3, F16C3B, 16C3D3, X116, X16, ME16. NET. \$4.02**

**56-172. Type F16C3MB. Replaces 16C3B, X16, M16. NET. \$5.15**

**56-173. Type F24H1P. Replaces F24G1, W24A1. NET. \$3.34**

37-024. Mallory Technical Bulletin containing rectifier data and circuit, sent FREE

## JANETTE DC TO AC ROTARY CONVERTERS



### WITH BUILT-IN RADIO FILTERS

Converts DC to AC. Permits the operation of AC radio sets, sound systems or recording equipment, and other devices and appliances from 32 volt, light plants or 115 volt DC lines. Compact, dynamically balanced, ruggedly designed, and built for long life. Efficient filter assures quiet radio reception.

### 115 VOLT DC TO 110 V. 60 CYCLE AC

| Stock No. | Out. Volts | In. Volts | Shpg. Wt. | NET EACH |
|-----------|------------|-----------|-----------|----------|
| 80-050    | 110        | 1.9       | 38 lbs.   | \$29.69  |
| 80-051    | 150        | 2.4       | 38 lbs.   | 32.63    |
| 80-052    | 225        | 3.0       | 40 lbs.   | 38.07    |
| 80-053    | 300        | 4.0       | 61 lbs.   | 46.01    |
| 80-054    | 500        | 6.1       | 72 lbs.   | 60.56    |
| 80-055    | 750        | 8.5       | 95 lbs.   | 90.11    |
| 80-056    | 1000       | 11.0      | 130 lbs.  | 111.72   |

### 32 VOLT DC TO 110 V. 60 CYCLE AC

| 80-060 | 110 | 6.5  | 38 lbs. | \$29.69 |
|--------|-----|------|---------|---------|
| 80-061 | 150 | 8.5  | 38 lbs. | 32.63   |
| 80-062 | 225 | 11.5 | 40 lbs. | 38.07   |
| 80-063 | 300 | 15.0 | 61 lbs. | 46.01   |
| 80-064 | 500 | 18.0 | 72 lbs. | 60.56   |

We can supply converters with 6 volt DC input and with various output voltages. Send us your order specifying requirements.

## HOMCHARGER 5-3 AMP. BOOSTER

Will keep radio and auto batteries fully charged. Required particularly for present day car batteries which must supply current to operate the many electrical devices in the modern car. May be used in the home, garage, or mounted under hood of cars on steering post with mounting bracket supplied. For operation on 115 V., 50-60 cycle AC.



No radio interference. Low operating cost. Size: 11" x 7" x 4 1/2". Ship. wt., 8 lbs. **80-024. NET. \$4.85**

## HEAVY-DUTY 10 AMP. CHARGER

10 amp. model designed for garage or service station use. Will quickly recharge any battery in perfect safety due to the automatic tapering feature. Has meter to indicate charging rate. Deluxe dash replacement. For 115 volts, 50-60 cycle AC. Size: 12 1/2" x 8 1/2" x 4 1/2". Ship. wt., 15 lbs. **80-026. NET. \$13.90**

## MALLORY 6-AMP CHARGER

Here is a quality charger, compact, well made and easy to use. Meter on the front panel indicates when battery is being properly charged. Copper-sulphide dry disc type rectifier. Output, 6 to 4 amperes. Special over-size transformer provides trouble-free taper charging. Operates automatically on any battery. Equipped with new thermal bimetallic circuit breaker—no fuses are used; protects charger from improper battery connections and from serious overloads. Black wrinkle-finished case. 7 1/2" x 4 1/2" x 4 1/2". For 115 volts, 50-60 cycle AC, 8 lbs. **80-030. Type 5535B. NET. \$9.02**





# SPECIAL INDUSTRIAL EQUIPMENT

## TRINDL SUPER-INDUSTRIAL ARC WELDERS

A complete line of industrial arc welders for every purpose. Backed by the manufacturer's 30 years experience in manufacturing and engineering research, these welders are outstanding in their ability to function dependably and economically over many years of continuous, hard service. Preferred by many industries for all high-speed production arc welding operations.

### COMPARE THESE TRINDL FEATURES

- Economical to operate.
- Quick-starting arc.
- Vernier arc control.
- No magnetic blow.
- Scientifically ventilated.
- Compartment for supplies.
- No moving parts to wear.
- Very conservatively rated.

### ② TYPE 125—125 AMP. MODEL

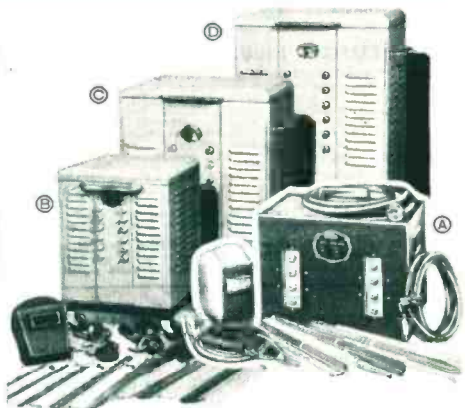
Especially designed for fast, light production and maintenance work where a larger machine is unnecessary. A big money-saver for any large or small shop. Readily portable, can easily be carried to the job and connected to any convenient electrical circuit. Can also be set up on benches, work tables and other permanent locations. Anyone with little or no experience can learn to operate this machine within a short period of time. Model 125 uses comparatively little current and will operate from any properly wired 110 or 220 volt AC circuit. Efficient designing permits continuous operation without interruption. Vernier-type arc control allows accurate current regulation. Has 16 metallic arc welding heat stages from 10 to 125 amperes. Handles rods from  $\frac{1}{8}$  to  $\frac{3}{16}$  dia. Can be used to weld metal as light as 20 gauge. Fully equipped with electrode holder, welding cable, ground cable, power cable, "C" clamp, welding rods, and welding and operating instructions. Size, 14 x 16 x 10 $\frac{1}{2}$ ". Shpg. wt., 92 lbs.

98-080. For 110 V., 50-60 cycle AC.

98-081. For 220 V., 50-60 cycle AC.

EITHER MODEL.

**\$48.04**



### ③ TYPE 160—150 AMP. MODEL

The Model 160 is a combination welder for operation from both 110 and 220 volt 50-60 cycle current. It features the vernier-type arc control which makes Trindl Super-Industrial Arc Welders so rapid and unusually easy to operate. This machine has 36 metallic arc welding heat stages, ranging from 10 to 160 amperes. Handles  $\frac{1}{8}$  to  $\frac{3}{16}$  welding rods. It is attractively encased in a durable red crackle-finished steel cabinet and is mounted on easy-rolling casters for portability. The Model 160 comes fully equipped with headshield, electrode holder, welding cable, ground cable, power cable, "C" clamp, welding rods, and detailed welding and operating instructions. Each instrument is ready for instant operation immediately on arrival. No previous experience is needed. Instructions furnished are in themselves equivalent to a basic arc welding course manual. Size only 26" x 18" x 18". Shipping weight, 140 lbs.

98-060.

NET.

**\$86.24**

### ④ TYPE 260—240 AMP. MODEL

The Model 260 features a built-in "Lift Top" compartment for storing supplies and accessories. The arc produced by this machine is unusually stable and is exceptionally easy to strike on all 36 heat stages. Vernier-type arc control permits accurate current regulation. The current output of the Model 260 ranges from 10 to 240 amperes. Uses  $\frac{1}{8}$  to  $\frac{3}{16}$  welding rods. Attractively housed in sturdy, welded steel crackle-finish cabinet with conveniently located handles and mounted on easy-rolling casters for portability. Comes fully equipped with headshield, electrode holder, welding cable, ground cable, "C" clamp, welding rods and detailed welding and operating instructions. No previous experience is needed by anyone who is to operate this welder. The instructions furnished are in themselves equivalent to a basic welding course manual. Size of unit 34"x25"x20". For 220 V., 50-60 cycles. Shpg. wt., 265 lbs.

98-061.

NET.

**\$142.10**

### ⑤ TYPE 360—350 AMP. MODEL

Model 360 is especially designed for continuous production on heavy work. It is the largest standard model in the Super-Industrial line. It has 36 heat stages, ranging from 30 to 350 amperes, and is capable of burning a  $\frac{1}{2}$ " welding rod. Model 360 is the finest unit available for those rush production or construction welding jobs. Has built-in "Lift-Top" compartment for storing supplies and accessories. Attractively housed in sturdy crackle-finished steel cabinet with conveniently located handles. Mounted on easy-rolling casters for portability. Vernier-type arc control permits accurate adjustment and regulation of current. Comes fully equipped and ready to operate, with headshield, electrode holder, welding cable, ground cable, welding rods, "C" clamp, and detailed welding and operating instructions. The instructions furnished are equivalent to a basic welding course. Size, 37"x25"x20". For 220 V., 50-60 cycles. Shpg. wt., 313 lbs.

98-062.

NET.

**\$220.50**

## TRINDL SPEEDWELD RODS

High grade, deep penetrating, mild steel, shielded arc welding electrodes for general purpose use with AC transformer or straight DC power operated welding machines. Rods are light tan flux coated.

| Stock No. | Size               | Amperes |      | Prices Per Pound |                |                   |
|-----------|--------------------|---------|------|------------------|----------------|-------------------|
|           |                    | Min.    | Max. | Under 50 lbs.    | 50 to 250 lbs. | 250 lbs. and over |
| 78-410    | $\frac{1}{8}$ x12" | 30      | 80   | 28c              | 23c            | 1.184c            |
| 78-411    | $\frac{1}{8}$ x14" | 70      | 120  | 22c              | 18c            | 1.184c            |
| 78-412    | $\frac{1}{8}$ x14" | 120     | 100  | 19c              | 15c            | 1.083c            |
| 78-413    | $\frac{1}{8}$ x14" | 150     | 280  | 19c              | 15c            | 1.083c            |

## AUDELS' WELDER'S GUIDE

The purpose of this book is to present not only the fundamentals of welding operations, but also the more specialized techniques of both hand and machine welding. Presents in clear step-by-step manner, all information required by the mechanic who wants to become a master of welding. Quick reference index instantly locates answer to any problem. A text for home study. A manual for on-the-job use. 422 pages. Illustrated. Size, 5"x8 $\frac{1}{2}$ ".

37-099 Postpaid

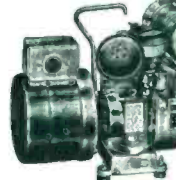
In U.S.A. NET.

**98c**



## PIONEER "LIGHTWEIGHT" GAS-ELECTRIC PLANTS

### 400 WATT AC—100 WATT DC



Pioneer Lightweight Gas-Electric plants are especially designed to meet the increasing demand for readily portable, yet dependable and powerful lighting plants and battery chargers for field work. Model BLA-6, illustrated at the left, supplies 110 volts, 60 cycles, AC at 400 watts continuously (450 watts intermittently) or 100 watts DC for charging 6-volt storage batteries. Single cylinder, air-cooled,  $\frac{1}{2}$  h.p. engine with rope-pull starting. Fuel consumption is 0.13 gallons per hour at rated load. Weighs only 77 pounds. Size overall, 18 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ ". Has 10 $\frac{1}{2}$ " wide, and 14 $\frac{1}{2}$ " high. Has rubber mounting feet. Shpg. wt., 102 lbs.

98-504. Model BLA-6. NET.

**\$77.55**

98-512. Model BL6-12. Same as Model BLA-6 above, except delivers 7.5 volts DC at 200 watts, or 15 volts DC at 300 watts. Both ratings are for continuous operation. Overall size, 18 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ ". Has 10 $\frac{1}{2}$ " wide, and 14 $\frac{1}{2}$ " high. Weighs only 75 lbs. Has four rubber mounting feet. Push button electric starting. Shipping weight, 100 lbs.

98-513. Model BL6-12. Same as Model BL6-12 above, except delivers 115 volts DC continuous duty at 400 watts. Weighs 75 lbs. Size, 18 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ ". Shpg. wt., 100 lbs.

**\$69.75**

## KNIGHT WINDCHARGER WITH 10-FOOT TOWER

Get FREE POWER from the wind with this latest Hy-Tower Charger. Costs nothing to operate, up to 16-20 amperes at 6 volts, direct current. Charges 6 volt storage batteries to supply current for radios, lighting service, power, etc. Carefully engineered features are: completely weatherproof, balanced propeller; automatic tilt-back regulator; heavy-duty generator which cuts in at 370 RPM, and automatic turntable brake. Tilt feature also automatically protects propeller against breakage in high winds. With sturdy 10-foot all-steel tower and accessories. Shipping weight, 73 lbs.

98-550. NET. **\$21.75**



## KNIGHT POWER PACK

Knigh power pack designed for eliminating batteries and to supply DC power for service shops and experimental laboratories. Delivers 300 volts of filtered DC at 65 ma., with intermediate taps of 22.5, 90, and 180 volts; also 6.3 volts of AC (center tapped) at 1.5 amperes. Has dual-choke filter with condenser input. Mounted on sturdy steel chassis with black crackle-finished overcoat. Screw-type terminals for quick and positive cable connections. Uses 1 type 80 rectifier (not supplied). With AC cord and plug. Size, 9 x 4 x 5 $\frac{1}{2}$ ". Operates from any 110-120 V. 60 cycle AC power outlet. Shipping weight, 8 lbs.

98-180. NET.

**\$6.95**



# SPECIAL INDUSTRIAL EQUIPMENT

## INDUSTRIAL POWER SUPPLIES AND CONVERTERS

### ALLIED'S INDUSTRIAL DIVISION

**ALLIED'S specialized Industrial Division** is at the service of all users of Radio and Electronic equipment. It has attained national prominence as the most efficient, centralized procurement source supplying the varied Radio and Electronic needs of industry and the armed forces. Our Expanding Department consists of trained technical and procurement specialists who know Electronic equipment, who are in contact with hundreds of sources of supply, and who can get what you need—quickly and efficiently.

**ALLIED's stocks include more than 10,000 different Radio and Electronic items:** Tubes, Test Equipment, Tools, Wire and Specialized Equipment for Industrial production, laboratory and research applications. We carry complete stocks of Sound and Intercommunication equipment for office and plant needs.

**ALLIED can supply everything in Radio and Electronics.** Send in your order even if item you need is not in our catalog. We either have it in stock, or will get it in shortest possible time.

### MOTOR GENERATOR POWER SUPPLY DEVICES

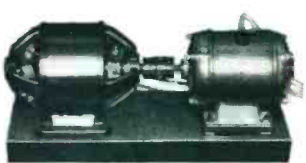
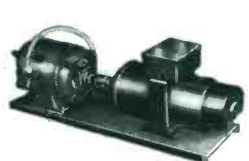


Illustration shows a 1/2 KW power supply driven by a 1 1/2 horse-power motor. Especially designed to provide training schools, factories, laboratories, maintenance shops, etc., with a convenient 14 and 28 volt DC power source for the operation of aircraft radio and electronic equipment. Operates from any 110 or 220 volt, 60 cycle, single-phase power line. Delivers 25 amperes DC with 95% regulation from no load to full load service and with a very low percent of ripple. Motor is of repulsion-induction type; generator is compound wound. Brushes are accurately aligned so that RF interference is held at absolute minimum. **ALLIED** can supply any type of generator or power supply equipment you need. Write or wire for quotations.

### STONE GENERATORS FOR CODE INSTRUCTION



The tone generator illustrated above was designed especially to provide a constant tone source for code training schools where a large number of headphones are used. This generator operates only from a 3-phase 220-volt, 60-cycle power source and delivers a pure 420-cycle single-phase tone of 220 watts at 115 volts. Motor and generator are mounted on a single shaft. Motor is a 3 horsepower self-starting induction type. Both motor and generator use no brushes or commutators of any type. Operates quietly and without RF interference. Write for quotations on **ALLIED's** engineering and Educational Division Advisory Staff will be glad to consult with you regarding your educational and equipment needs. No charge or obligation for this service.

### MALLORY 10 AMP. CHARGER



Black wrinkle-finished case. Copper-sulphide dry disc type rectifier. Meter on the front panel indicates when battery is being charged. Output, 7 to 10 amps. Special oversize transformer provides trouble-free taper charging. Operates automatically on any battery. Equipped with new thermal bimetallic circuit breaker—no fuses are used; protects charger from improper battery connections. 9 1/4 x 6 1/4 x 5 1/4". For 115 volts, 50-60 cycles. Wt., 11 lbs. **60-032. Type 107. NET \$11.76**

### MALLORY GENERAL-UTILITY POWER SUPPLIES

A heavy-duty mobile unit for use in laboratories or on assembly lines to furnish high-current DC power for building, testing and repairing electrical equipment of all types. Particularly suited for checking electrical systems and charging batteries of aircraft, buses and trucks—or wherever there is a demand for 10-16 or 20-32 volt DC. Has variable voltage output, no load (10-15%), and low ripple characteristic—3% at full load, lower at light loads. Circuits are arranged to deliver both 12 and 24 volts simultaneously. Quiet operation; no foundation required; DC contactor prevents discharge of battery in event of power failure when unit is used as a battery charger or in parallel with a battery for precision regulation. Designed to operate from 210 to 230 volt, 3-phase, 50-60 cycle AC power line.



### CONSERVATIVELY RATED

The entire power supply circuit is capable of withstanding a 25% continuous overload without excessive heat rise. The power transformer is of the three-phase, completely insulated, two-winding type. Rectifier elements are Mallory magnesium-copper sulphide type with adequate handling capacity. Manually operated AC starting switch equipped with thermal overload relays and manual reset button. A DPDT switch provides means for instant selection of the 12 or 24 volt output. 8-position tap switches make it possible to adjust voltage output by switching power transformer taps. One dual-scale meter is provided to read DC volts across rectifier bridge. A single-scale ammeter provides readings on the DC output current being supplied. One dry electrolytic condenser and one radio frequency condenser are connected across each of the two rectifier bridges. Size, 18 1/2 x 16 1/4 x 46". Approx. wt., 250 lbs. **80-110. Type VA-1500. 10 to 16 V. at 100 amps. \$400.00**  
**80-111. Type VA-3000. 10 to 16 V. at 200 amps. \$500.00**  
460-volt units available on special order. Write, describing requirements. Ask for **FREE** circular, 37-150.

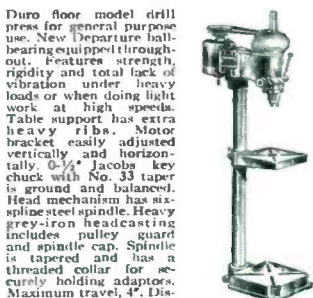
### DIRECT READING "Q" METERS

### DURO FLOOR-MODEL DRILL PRESS



**WITH BUILT-IN RF OSCILLATOR**  
New direct reading "Q" meter with built-in RF oscillator. Features rugged design, portability, and simplicity of operation. Easy to operate. Ideal for production testing, inspection, and laboratory work. Large direct reading scale indicates "Q" of reactance under test. Oscillator frequency range, 60 KC to 60 MC, continuously variable and accurate within 10%. Sensitive magic eye indicator for fast reading. No meters used or required. Bridge circuit used insures accurate "Q" measurements and high stability of operation independent of oscillator amplitude, line voltage fluctuations and normal variation in tube characteristics. Overall size, 20 x 12 x 13". For 105-120 V., 60 cycle operation. Complete with cables. Ship. wt., 45 lbs. **84-970. Type L4. NET \$380.00**

**84-971. Type H2. Same as Type 14 described above except oscillator range extends from 15 MC to 200 MC. NET \$380.00**



Duro floor model drill press for general purpose use. New Departure ball-bearing equipped through-out. Features—rigidity and strength, vibration under heavy loads or when doing light work at high speeds. Table support has extra heavy ribs. Motor bracket easily adjusted vertically and horizontally. 0-1/4" Jacobs key chuck with No. 33 taper is ground and balanced. Head mechanism has six spline steel spindle. Heavy grey-iron headcasting includes pulley guard and spindle cap. Spindle is tapered and has a threaded collar for securely holding fixtures. Maximum travel, 4". Distance from center-line of drill bit to center of 14" stock. The adjustable depth gauge is graduated in 1/4" steps and may be set at 0" regardless of drill position; also has positive stop lock with 1/2" pointer to indicate depth of hole being drilled. Steel column, 2 1/4" dia. Table, 10 x 10". Table tilts to 45°. Base, 12 1/2 x 16 1/2" overall. Max. distance from base plate to chuck, 45 1/2". From table to chuck, 41 1/2". Ship. wt., 127 lbs. Supplied complete with motor pulley and 40" V belt, less motor. **98-980. Type R 3081. NET \$59.95**  
**98-981. 110 V., 60 cycle, 3600 r.p.m., 1/4 hp. motor with 1/4" shaft. NET \$29.95**

### TORK TIME-SWITCH CONTROL

Model 191A Industrial Control Electric Time Switch for light or heavy loads not to exceed 20 amperes or 2,200 watts. Underwriters' Laboratory inspected. Turns electrical equipment on or off at predetermined intervals of 15 minutes or more over continuous 24-hour periods of time. Setting can be made to an accuracy of within plus or minus one minute. Single pole on-off switch breaks quickly to minimize arcing. Switch operating positions are quickly and easily set up. Switch can be operated manually or by time with-out disturbing pre-set adjustments. Operates from a 110-volt, 60-cycle oil-sealed synchronous motor. All other parts operating faster than 8 r.p.m. are also oil-sealed for long life. Housed in durable 8 3/4 x 5 3/4 x 3 3/4" steel case. Available on priority orders only. Shipping weight, 6 lbs. **78-302. NET \$9.10**





# Finest Quality RESISTORS

## HANDY KNIGHT INSULATED CARBON RESISTOR KITS



### 24 Popular Values With Handy Carton

Highest quality Knight Insulated Carbon Resistors supplied with handy case and mounting strips. 24 commonly used values. Keep a kit on your workbench and another in your tool bag—you'll have the resistor you need when you want it. RMA color-coded. With free Color-Code Guide. Increase your efficiency and profits by having available a substantial stock of these quality resistors.

| Ohms | Ohms | Ohms  | Ohms  | Ohms   | Ohms   |
|------|------|-------|-------|--------|--------|
| 200  | 1000 | 6000  | 20000 | 50000  | 250000 |
| 400  | 2000 | 12000 | 30000 | 100000 | 500000 |
| 500  | 3000 | 12500 | 30000 | 75000  | 1 Meg. |
| 750  | 4000 | 15000 | 40000 | 100000 | 2 Meg. |

### 1 WATT KIT

Consists of one each of the above Knight Insulated Resistors in 1 watt size. Wt., 1 1/2 lb. 2-700. **\$1.30**

### 1/2 WATT KIT

Consists of one each of the above Knight Insulated Resistors in 1/2 watt size. Wt., 1 lb. 2-701. **\$1.05**

### 1/4 WATT KIT

Handy assortment consisting of one each of the above Knight Insulated Carbon Resistors in 1/4 watt size. Shpg. wt., 1/4 lb. 2-702. **NET** **85c**

## 12 POPULAR VALUES WITH HANDY HOLDER

An asset in shop or on service calls. Each kit is an assortment of the 12 most popular values of Knight quality insulated carbon resistors RMA color-coded. To be mounted on sturdy strip supplied. RMA Color-Code chart with each kit. A valuable and handy group of kits. Keep them on hand for all repairs.

### STANDARD VALUES

| Ohms | Ohms  | Ohms  | Ohms   | Ohms   | Ohms   |
|------|-------|-------|--------|--------|--------|
| 200  | 3000  | 20000 | 75000  | 100000 | 500000 |
| 400  | 4000  | 25000 | 100000 | 250000 | 500000 |
| 500  | 6000  | 30000 | 100000 | 250000 | 500000 |
| 750  | 10000 | 40000 | 500000 | 1 Meg. | 2 Meg. |
| 1000 | 12500 | 50000 | 1 Meg. | 2 Meg. |        |

### 1 WATT KITS

2-720. Consists of one each of the above from 200 to 15,000 ohms. Shpg. wt., 10 oz.

2-721. Consists of one each of the above from 20,000 ohms to 2 meg. Wt., 10 oz. **EITHER KIT** **60c**

## WIRE-WOUND RESISTORS



Wire-wound on a bakelite strip with solder lugs at each end. Resistance wire is spread; cannot short between turns. Pressed-on solder lugs. Power rating is 1/2 watt. Use two in series for center tapping. Fuse between cathode of rectifier tube and B+ to prevent condenser failure in AC-DC sets due to voltage surges. All values as listed below. Weight, 3 oz.

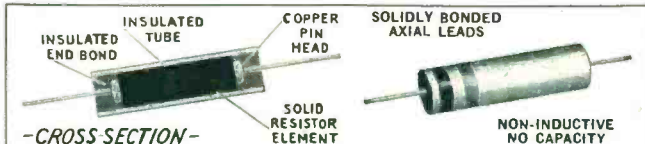
| Ohms | Ohms | Ohms | Ohms | Ohms | Ohms |
|------|------|------|------|------|------|
| 1    | 6*   | 20*  | 50*  | 500  | 600  |
| 2    | 8    | 25   | 100* | 500  | 700  |
| 3    | 10*  | 30   | 100* | 500  | 700  |
| 4    | 15*  | 40*  | 400* | 1000 |      |

1-900. Specify Values Desired. **4c**  
10 FOR 63c. **EACH** **7c**

### CENTER-TAPPED RESISTORS

Ideal for filament or hum balancing circuits. Wire-wound on flexible fiber strips. Supplied in values marked (\*) above. Shpg. wt., 3 oz. 1-920. Specify Values Desired. **8c**  
10 FOR 71c. **EACH** **8c**

## KNIGHT INSULATED CARBON RESISTORS



### The Certified Resistors with the 2-Year Guarantee

Completely insulated, non-inductive resistors. Commercial tolerances. Quiet in operation and moisture-proof. 1,000-volt insulation. Solidly bonded axial leads. Electrically and mechanically Knight resistors are unconditionally guaranteed for 2 years. Shpg. wt., 3 oz.

### STANDARD STOCK RANGES—SPECIFY VALUES DESIRED

| Ohms | Ohms | Ohms | Ohms  | Ohms  | Ohms   | Ohms   | Ohms     | Ohms    | Ohms |
|------|------|------|-------|-------|--------|--------|----------|---------|------|
| 50   | 500  | 1750 | 6000  | 15000 | 50000  | 200000 | 900000   | 5 meg.  |      |
| 75   | 500  | 2000 | 7000  | 17500 | 60000  | 250000 | 1 meg.   | 6 meg.  |      |
| 100  | 600  | 2500 | 8000  | 20000 | 70000  | 300000 | 1.5 meg. | 7 meg.  |      |
| 150  | 750  | 3000 | 8000  | 25000 | 75000  | 400000 | 2 meg.   | 8 meg.  |      |
| 200  | 1000 | 3500 | 9000  | 30000 | 100000 | 500000 | 2.5 meg. | 9 meg.  |      |
| 250  | 1250 | 4000 | 10000 | 35000 | 125000 | 600000 | 3 meg.   | 10 meg. |      |
| 300  | 1500 | 5000 | 12500 | 40000 | 150000 | 750000 | 4 meg.   |         |      |

### 1-800. 1/4 WATT.

NET EACH **4c**  
10 for **32c**  
100 for **\$2.88**

### 1-820. 1/2 WATT.

NET EACH **5c**  
10 for **40c**  
100 for **\$3.60**

### 1-840. 1 WATT.

NET EACH **6c**  
10 for **50c**  
100 for **\$4.50**

### 1-860. 3 WATT.

NET EACH **11c**  
10 for **99c**  
25 for **\$2.20**

### Above Quantity Prices Apply for Assortment of Any Values



### RMA COLOR-CODE GUIDE

A handy vest pocket resistor guide for every serviceman, builder, experimenter, etc. Formed from light-weight, attractive varnished board. Has three rotary discs. Quickly indicates value of any resistor color-coded according to RMA standards, either old style with center dot, or new style with colored bands. The guide is marked for "Body," "End," and "Dot" colors. For resistors marked with bands, read from left disc to right in the same sequence that resistor is coded. Shpg. wt., 2 oz. 2-770. **NET** **12c**

FREE with order for 30 resistors

## KNIGHT WIRE-WOUND POWER RESISTORS



Finest power resistors, wire-wound on a ceramic core. For radio, electrical and industrial applications. Coated with a heavy protective cement which provides complete protection against moisture. All units are clearly marked with their resistance value. Hollow cores provide maximum heat dissipation. 1 1/2" tin-plated leads. Shpg. wt., 4 oz.

### SPECIFY VALUES DESIRED

| Ohm | Ohm | Ohm  | Ohm  | Ohm   | Ohm     |
|-----|-----|------|------|-------|---------|
| 1   | 25  | 250  | 1500 | 7500  | 40000   |
| 2*  | 50  | 400  | 2000 | 10000 | 50000   |
| 5   | 75  | 500  | 2500 | 15000 | 60000   |
| 10  | 100 | 750  | 3000 | 20000 | 70000*  |
| 15* | 150 | 1000 | 4000 | 25000 | 80000*  |
| 20* | 200 | 1250 | 5000 | 30000 | 100000* |

### 10 WATT SIZE. 1 1/4 x 3/4"

1-500. In all values except those marked f. Specify values when ordering. **18c**

### 20 WATT SIZE. 2 x 1 1/4"

Available in all values except those marked \*. Specify values desired when ordering.

1-550. Values 1 to 50,000 ohms. Specify values desired when ordering. **32c**

5 FOR \$1.44. **EACH** **32c**

1-580. Values 60,000 to 100,000 ohms. Specify values desired. **37c**

5 FOR \$1.66. **EACH** **37c**

## KNIGHT ADJUSTABLE WIRE-WOUND RESISTORS



A high-grade line of tough, rugged resistors that will take plenty of punishment. Accurately wound on ceramic tubes; made to rigid specifications. Ideal for use in radio classes where effects of varying voltages and current are studied; for experimental work where old resistance values are required. Complete with slider lug and mounting brackets. Excellent for all industrial applications. Please extend highest priority to speed delivery. Av. wt., 6 oz.

### STANDARD STOCK RANGES

| Ohms | Ohms | Ohms | Ohms  | Ohms   | Ohms |
|------|------|------|-------|--------|------|
| 50   | 500* | 4000 | 20000 |        |      |
| 2*   | 75   | 750  | 5000  | 25000  |      |
| 3    | 100  | 1000 | 7500  | 30000  |      |
| 5    | 150  | 1250 | 8000  | 40000  |      |
| 7.5* | 200  | 1500 | 8500  | 50000  |      |
| 10   | 250  | 2000 | 9000  | 60000  |      |
| 15   | 300* | 2500 | 10000 | 80000  |      |
| 20*  | 400* | 3000 | 12000 | 100000 |      |
| 25   | 500  | 3500 |       |        |      |

### 10 WATT RESISTORS

1-500. Available in all values shown from 1 to 10,000 ohms. Specify values when ordering. Size, 1 1/4 x 3/4". **NET EACH** **35c**

### 25 WATT RESISTORS

1-520. In values from 1 to 5,000 ohms, except those marked \*. Specify values when ordering. Size, 2 x 1 1/4". **NET EACH** **48c**

1-520. In values from 7,500 to 15,000 ohms. Specify values when ordering. Size, 2 x 1 1/4". **NET EACH** **52c**

1-520. 20,000 and 25,000 ohms. EA... **61c**

### 50 WATT RESISTORS

1-540. In values from 3 to 5,000 ohms, except those marked \*. Specify values when ordering. Size, 4 x 1 1/4". **NET EACH** **76c**

1-540. 7,500 to 25,000 ohms. EA... **83c**

1-540. 40,000 to 50,000 ohms. EA... **95c**

1-540. 60,000 to 100,000 ohms. EA... **\$1.12**

2-620. Extra Lug for 10 watt units.

2-621. Extra Lug for 25 and 50 watt units. **NET EACH** **5c**

NOTE: We can supply resistors for every radio and electronic purpose. Please see pages 18 and 19 for additional display of popular brands and values.

# Finest Quality RESISTORS

## SPRAGUE KOOLOHM RESISTORS



Wire-Wound. Fully insulated. Cannot short between turns. Red dot at end changes to brown when resistor is overloaded. Changes back to red when load is corrected. Can be mounted anywhere without shorting. Ceramic form. Accuracy,  $\pm 5\%$ . Av. wt., 3 oz.

| STOCK RANGES—SPECIFY VALUES |      |      |       |       |
|-----------------------------|------|------|-------|-------|
| Ohms                        | Ohms | Ohms | Ohms  | Ohms  |
| 5                           | 100  | 800  | 4000  | 15000 |
| 10                          | 150  | 900  | 5000  | 17500 |
| 15                          | 200  | 1000 | 6000  | 20000 |
| 20                          | 250  | 1250 | 7500  | 25000 |
| 25                          | 300  | 1500 | 9000  | 30000 |
| 30                          | 400  | 1750 | 9000  | 40000 |
| 40                          | 500  | 2000 | 10000 | 50000 |
| 50                          | 600  | 2500 | 12500 | 60000 |
| 75                          | 700  | 3000 | 14000 | 70000 |

| TYPE 5K—5 WATT— $1\frac{1}{2}\%$ |                |      |
|----------------------------------|----------------|------|
| Stock No.                        | Ohms           | EACH |
| 1-640                            | 10 to 5000     | 24c  |
| 1-640                            | 6000 to 10000  | 26c  |
| 1-640                            | 12500 to 15000 | 29c  |
| 1-640                            | 20000          | 32c  |
| 1-640                            | 25000          | 41c  |
| 1-640                            | 30000          | 44c  |
| 1-640                            | 40000          | 50c  |

| TYPE 10K—10 WATT— $1\frac{1}{2}\%$ |                |      |
|------------------------------------|----------------|------|
| Stock No.                          | Ohms           | EACH |
| 1-660                              | 5 to 10000     | 26c  |
| 1-660                              | 12500 to 15000 | 29c  |
| 1-660                              | 17500 to 20000 | 35c  |
| 1-660                              | 25000          | 41c  |
| 1-660                              | 30000          | 44c  |
| 1-660                              | 40000          | 53c  |
| 1-660                              | 50000          | 59c  |
| 1-660                              | 60000          | 79c  |
| 1-660                              | 70000          | 82c  |

### NON-INDUCTIVE FIXED TYPE 10-NI RESISTORS—10 WATT. $1\frac{1}{4}$ x $\frac{3}{8}$ "

Wire-wound resistors of zero inductance, unsurpassed for television plate-load circuits, etc. 2 mmf. distributed capacity to 50 MC.

|                                                                                |     |
|--------------------------------------------------------------------------------|-----|
| 1-680, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 250, 400, 500, 750, 1000 ohms. | 35c |
| 1-680, 1250, 1500, 2000 ohms. EACH                                             | 41c |
| 1-680, 2500, 3000, 3500, 4000 ohms. EACH                                       | 44c |
| 1-680, 5000 ohms. EACH                                                         | 47c |
| 1-680, 7500 ohms. EACH                                                         | 53c |
| 1-680, 10000 ohms. EACH                                                        | 68c |

### CENTRICAL CARBON TYPE C CERAMIC-COATED RESISTORS



New carbon-type resistors, completely sealed within ceramic tubes for complete protection against moisture. Fully insulated. Can be connected within limited space without danger of shorting to chassis or other non-insulated parts. Axial tin-lead wire leads are securely bonded to the carbon element in such a manner as to insure positive low resistance contact and to prevent loosening with use or age. All sizes and values are exceptionally quiet in operation. Non-inductive. Non-capacitive. Excellent for use in high-gain audio amplifier circuits. RMA color coded. Accuracy within plus or minus 10%. Size, 1 watt type— $\frac{1}{4}$ " x  $\frac{1}{4}$ " dia.;  $\frac{1}{2}$  watt type— $\frac{1}{4}$ " x  $\frac{3}{8}$ " dia.

| STOCK RANGES—SPECIFY VALUES |      |       |        |          |
|-----------------------------|------|-------|--------|----------|
| Ohms                        | Ohms | Ohms  | Ohms   | Ohms     |
| 50                          | 1000 | 7500  | 50000  | 300000   |
| 100                         | 1500 | 10000 | 55000  | 400000   |
| 150                         | 1750 | 12500 | 60000  | 500000   |
| 200                         | 2000 | 15000 | 70000  | 1 Meg.   |
| 250                         | 2500 | 17500 | 75000  | 1.5 Meg. |
| 300                         | 3000 | 20000 | 100000 | 2 Meg.   |
| 400                         | 3500 | 25000 | 125000 | 3 Meg.   |
| 500                         | 4000 | 30000 | 150000 | 4 Meg.   |
| 600                         | 5000 | 35000 | 200000 | 5 Meg.   |
| 750                         | 6000 | 40000 | 250000 | 10 Meg.  |

|                                  |                      |
|----------------------------------|----------------------|
| 2-850, $\frac{1}{2}$ WATT TYPE C | 2-860, 1 WATT TYPE C |
| NET EACH 10c                     | NET EACH 12c         |

## OHMITE "DIVIDOHM" ADJUSTABLE RESISTORS



Here's an ideal resistor for innumerable purposes: for transmitters, for adjusting circuits, to compensate for various line voltages, etc. Wire-wound on porcelain core with vitreous enamel coat. Includes slider and mtg. brackets. 25 watt size is 2" long; 50 watt, 4"; 100 watt, 6 $\frac{1}{2}$ "; 200 watt, 10 $\frac{1}{2}$ ". Av. shpg. wt., 1 lb.

| 25 WATTS |              |       |     |      |
|----------|--------------|-------|-----|------|
| No.      | Type         | Ohms  | Ma. | EACH |
| 75-780   | 0368         | 100   | 500 |      |
| 75-781   | 0371         | 250   | 316 |      |
| 75-782   | 0372         | 500   | 223 |      |
| 75-783   | 0373         | 750   | 182 |      |
| 75-784   | 0375         | 1000  | 158 | 56c  |
| 75-785   | 0376         | 1500  | 129 |      |
| 75-786   | 0377         | 2000  | 112 |      |
| 75-787   | 0378         | 2500  | 100 |      |
| 75-788   | 0379         | 3000  | 91  |      |
| 75-789   | 0382         | 5000  | 70  |      |
| 75-790   | 0384         | 7500  | 57  |      |
| 75-791   | 0385         | 10000 | 50  | 65c  |
| 75-792   | 0386         | 12000 | 42  |      |
| 75-793   | 0387         | 15000 | 34  |      |
| 75-794   | 0388         | 20000 | 26  | 71c  |
| 75-795   | 0389         | 25000 | 21  |      |
| 75-880   | EXTRA SLIDER |       |     | 6c   |

| 50 WATTS |              |        |     |        |
|----------|--------------|--------|-----|--------|
| No.      | Type         | Ohms   | Ma. | EACH   |
| 75-800   | 0568         | 250    | 447 |        |
| 75-801   | 0569         | 500    | 316 |        |
| 75-802   | 0570         | 750    | 258 |        |
| 75-803   | 0572         | 1000   | 223 |        |
| 75-804   | 0573         | 1500   | 182 | 88c    |
| 75-805   | 0574         | 2000   | 158 |        |
| 75-806   | 0575         | 2500   | 141 |        |
| 75-807   | 0578         | 5000   | 100 |        |
| 75-808   | 0581         | 10000  | 70  |        |
| 75-809   | 0583         | 15000  | 57  | 97c    |
| 75-810   | 0584         | 20000  | 48  |        |
| 75-811   | 0585         | 25000  | 41  |        |
| 75-812   | 0586         | 30000  | 41  |        |
| 75-813   | 0587         | 40000  | 35  | \$1.12 |
| 75-814   | 0588         | 50000  | 23  |        |
| 75-815   | 0591         | 100000 | 12  | 1.29   |
| 75-880   | EXTRA SLIDER |        |     | 6c     |

| 100 WATTS |              |        |     |        |
|-----------|--------------|--------|-----|--------|
| No.       | Type         | Ohms   | Ma. | EACH   |
| 75-830    | 0962         | 1000   | 316 | \$1.29 |
| 75-831    | 0964         | 5000   | 141 |        |
| 75-832    | 0965         | 10000  | 100 |        |
| 75-833    | 0966         | 15000  | 80  | 1.47   |
| 75-834    | 0967         | 20000  | 71  |        |
| 75-835    | 0968         | 25000  | 53  |        |
| 75-836    | 0969         | 30000  | 47  |        |
| 75-837    | 0970         | 40000  | 36  | 1.62   |
| 75-838    | 0971         | 50000  | 29  |        |
| 75-839    | 0972         | 75000  | 19  |        |
| 75-840    | 0973         | 100000 | 15  | 1.76   |
| 75-881    | EXTRA SLIDER |        |     | 9c     |

| 200 WATTS |              |        |     |        |
|-----------|--------------|--------|-----|--------|
| No.       | Type         | Ohms   | Ma. | EACH   |
| 75-850    | 1362         | 1000   | 447 | \$1.94 |
| 75-851    | 1364         | 5000   | 200 |        |
| 75-852    | 1366         | 10000  | 141 |        |
| 75-853    | 1368         | 15000  | 113 |        |
| 75-854    | 1367         | 20000  | 100 |        |
| 75-855    | 1368         | 25000  | 89  | 2.26   |
| 75-856    | 1369         | 30000  | 81  |        |
| 75-857    | 1370         | 40000  | 63  |        |
| 75-858    | 1371         | 50000  | 49  |        |
| 75-859    | 1372         | 75000  | 33  |        |
| 75-860    | 1373         | 100000 | 25  |        |
| 75-882    | EXTRA SLIDER |        |     | 9c     |

## IRC ULTRA HIGH-RANGE METALLIZED RESISTORS



Designed for UHF use. Special construction minimizes surface leakage. Tolerance  $\pm 10\%$ . Maximum volts. 500. Size,  $1\frac{1}{2}$ " x  $1\frac{1}{2}$ ".

| No.   | Meq. | EACH | No.   | Meq.  | EACH   |
|-------|------|------|-------|-------|--------|
| 1-350 | 100  | 98c  | 1-353 | 1000  | \$1.47 |
| 1-351 | 250  | 98c  | 1-354 | 5000  | \$1.47 |
| 1-352 | 500  | 98c  | 1-355 | 10000 | 1.98   |

## OHMITE "BROWN DEVIL" WIRE-WOUND RESISTORS



Famous "Brown Devil" resistors for all radio and industrial requirements. Compact wire-wound units with vitreous enamel coating which protects against humidity and mechanical damage. Tolerance,  $\pm 10\%$ . Sturdy  $1\frac{1}{4}$ " x  $\frac{3}{16}$ ". Tinned leads. Shpg. wt., 3 oz.

| STOCK RANGES—SPECIFY VALUES |      |       |        |         |
|-----------------------------|------|-------|--------|---------|
| Ohms                        | Ohms | Ohms  | Ohms   | Ohms    |
| 1*                          | 125* | 1000  | 6000   | 25000   |
| 2*                          | 150  | 1100* | 7000   | 30000   |
| 3*                          | 200  | 1200  | 7500   | 35000   |
| 4*                          | 225* | 1250  | 8000   | 40000   |
| 5*                          | 250  | 1500  | 8500*  | 45000   |
| 10*                         | 300  | 1750  | 10000  | 50000   |
| 12*                         | 350  | 1850* | 11000* | 55000*  |
| 15*                         | 400  | 2000  | 12000* | 60000*  |
| 20*                         | 450* | 2250* | 13500  | 65000*  |
| 25*                         | 500  | 2400* | 15000* | 70000*  |
| 30*                         | 600* | 2500  | 14300* | 75000*  |
| 35*                         | 650* | 2750* | 15000  | 80000*  |
| 40*                         | 700  | 3000  | 16000* | 85000*  |
| 50                          | 750  | 3500  | 17500* | 90000*  |
| 75                          | 800  | 4000  | 18000* | 95000*  |
| 100                         | 850* | 4500  | 20000  | 100000* |
|                             | 900* | 5000  | 22500* |         |

| 10 WATT RESISTORS                                            |     |
|--------------------------------------------------------------|-----|
| Available in all values except those marked *                |     |
| 1-700. Values 1 to 10,000 ohms. Specify values desired.      | 26c |
| NET EACH                                                     |     |
| 1-700. Values 15,000 to 50,000 ohms. Specify values desired. | 29c |
| NET EACH                                                     |     |

| 20 WATT RESISTORS                                                                        |     |
|------------------------------------------------------------------------------------------|-----|
| Available in all values except those marked *                                            |     |
| 1-720. Values, 5 to 15,000 ohms. Size, 2x $\frac{1}{4}$ ". Specify values desired.       | 41c |
| NET EACH                                                                                 |     |
| 1-720. Values, 20,000 to 50,000 ohms. Size, 2x $\frac{1}{2}$ ". Specify values desired.  | 50c |
| NET EACH                                                                                 |     |
| 1-720. Values, 55,000 to 100,000 ohms. Size, 2x $\frac{1}{2}$ ". Specify values desired. | 65c |
| NET EACH                                                                                 |     |

## OHM'S LAW CALCULATOR

This new calculator answers any Ohm's Law problem with one slide setting. Finds volts, amps, and watts. Resistance range from 0 to 10 megohms. Has scales on both sides. Simple to operate. Shpg. wt., 5 oz.



2-780. NET. 10c

## KNIGHT 5-WATT WIRE-WOUND RESISTORS



Finest quality wire-wound resistors for all radio work. Tolerance within 10%. Conservative wattage rating. Dissipate heat rapidly. Triple insulation protects against moisture and physical damage. With pig-tails and lugs. Size:  $1\frac{1}{4}$ " x  $\frac{3}{16}$ ". Shpg. wt., 3 oz.

| SPECIFY VALUE DESIRED |      |      |      |       |
|-----------------------|------|------|------|-------|
| Ohms                  | Ohms | Ohms | Ohms | Ohms  |
| 5                     | 150  | 900  | 2500 | 9000  |
| 10                    | 200  | 1000 | 2750 | 10000 |
| 15                    | 250  | 1100 | 3000 | 12500 |
| 20                    | 300  | 1250 | 3500 | 15000 |
| 25                    | 500  | 1500 | 5000 | 17500 |
| 50                    | 600  | 1750 | 6000 | 20000 |
| 75                    | 750  | 2000 | 7000 | 22500 |
| 100                   | 800  | 2250 | 8000 | 25000 |
| 2-800.                |      |      |      | 15c   |
| NET EACH              |      |      |      |       |



# IRC RESISTORS

## IRC "WW" WIRE-WOUND PRECISION RESISTORS



Ideal for use as meter multipliers and shunts. Accuracy within 1%. Values to 500,000 ohms have lug terminals; size: 1 1/2" x 3/4" dia. Others have knurled nuts; size: 2 1/4" x 3/4" dia. Available in odd sizes on special order at cost of net higher value. Wt., 3 oz.

| No.   | Ohms  | NET | No.   | Ohms     | NET    |
|-------|-------|-----|-------|----------|--------|
| 2-500 | 1     |     | 2-521 | 40000    | \$0.79 |
| 2-501 | 10    |     | 2-522 | 50000    | .79    |
| 2-502 | 25    |     | 2-523 | 60000    | .94    |
| 2-503 | 50    |     | 2-524 | 75000    | .94    |
| 2-504 | 100   | 50c | 2-525 | 100000   | 1.09   |
| 2-505 | 200   |     | 2-526 | 125000   | 1.23   |
| 2-506 | 250   |     | 2-527 | 150000   | 1.38   |
| 2-507 | 500   |     | 2-528 | 175000   | 1.38   |
| 2-508 | 1000  |     | 2-529 | 200000   | 1.38   |
| 2-509 | 1500  |     | 2-530 | 225000   | 1.53   |
| 2-510 | 2000  | 53c | 2-531 | 250000   | 1.53   |
| 2-511 | 2500  |     | 2-532 | 300000   | 1.68   |
| 2-512 | 4000  |     | 2-533 | 400000   | 1.76   |
| 2-513 | 5000  | 59c | 2-534 | 500000   | 2.00   |
| 2-514 | 7500  |     | 2-535 | 600000   | 2.50   |
| 2-515 | 10000 |     | 2-536 | 750000   | 2.65   |
| 2-516 | 12500 | 65c | 2-537 | 1 Meg.   | 3.59   |
| 2-517 | 15000 |     | 2-538 | 1.5 Meg. | 4.41   |
| 2-518 | 20000 |     | 2-539 | 2 Meg.   | 5.88   |
| 2-519 | 25000 | 79c | 2-540 | 2.5 Meg. | 7.35   |
| 2-520 | 30000 |     |       |          |        |

## IRC RESIST-O-CABINET



GET IT FREE With Purchase of Assortments Below

Sturdy, non-metallic cabinet. 4 large drawers have separate sections. 11 1/2 x 5 1/2 x 5 1/2".

### RESISTOR ASSORTMENT No. 1

Has 59 BT-1/2, 1/4 Watt, 1 each; 1000, 5000, 10000, 25000, and 50000 ohms. 1, 25, and 5 meg.; BT-1, 1 Watt, 1 each; 40000, and 75000 ohms. 15 and 2 meg.; AB 10 Watt, 1 each; 1000, 1500, 2500, 5000 ohms; 1.0 and 2.0 meg.; 3 each; 10000 and 50000 ohms. 1, 25, and 5 meg.; AB 10 Watt, 1 each; 1000, 1500, 2500, 5000 ohms; 2 each; 10000, 15000, and 25000 ohms; and ABA 10 Watt adjustable, 1 each; 1000, 2500, 5000, and 10000 ohms. Wt., 7 lbs.

2-750. Complete with above cabinet. NET. **\$9.68**

### RESISTOR ASSORTMENT No. 2

Contains 100 Type BT-1/2, and BW-1/4, 1/2 Watt units for 1/4, 1/2 or 1 Watt replacement in meter sets or for laboratories, etc. Units range from 50 ohms to 2.0 meg. Wt., 7 lbs.

2-751. Complete with above cabinet. NET. **\$9.98**

### RESISTOR ASSORTMENT No. 3

Contains 83 Type BT-1 and BW-1, 1 Watt Metallized Resistors in a balanced assortment from 50 ohms to 2.0 meg. Wt., 7 lbs.

2-752. Complete with above cabinet. NET. **\$9.76**

## SLIDERS FOR ADJUSTABLE IRC RESISTORS



The new "X" sliders have a silver contact button attached to metal spring. Eliminates damage and makes positive contact.

### NEW "X" TYPE

2-604. For DHA type resistors. **EACH**  
2-605. For EPA type resistors. **EACH** 12c  
2-603. For HAA-HOA resistors. NET. 15c

### STANDARD TYPE

2-600. For ABA type resistors. **EACH**  
2-601. For DHA type resistors. **EACH**  
2-602. For EPA type resistors. **EACH** 6c  
2-606. For HAA-HOA resistors. NET. 9c

## IRC ALL-PURPOSE INSULATED RESISTORS

### "BT" METALLIZED AND "BW" WIRE-WOUND TYPES

Highest quality resistors. Use the wire-wound type "BW" for meters, air cell batteries, cathode bias, etc. Connect two resistors in series for center tap. Use metallized type "BT" for all general purposes. Quiet operation permits use in high-gain type amplifiers, etc. Wt., 3 oz. We can supply type "BT" IRC resistors on special order. Prices are the same as those quoted for type "BT."



### STANDARD STOCK RANGES—SPECIFY VALUES DESIRED

| Ohms | Ohms | Ohms | Ohms | Ohms  | Ohms   | Ohms     | Ohms    |
|------|------|------|------|-------|--------|----------|---------|
| 0.5  | 30   | 400  | 2250 | 9000  | 30000  | 150000   | 2 meg.  |
| 1    | 40   | 450  | 2500 | 10000 | 30000  | 200000   | 3 meg.  |
| 2    | 50   | 500  | 3000 | 11000 | 40000  | 250000   | 4 meg.  |
| 3    | 75   | 600  | 3500 | 12000 | 50000  | 300000   | 5 meg.  |
| 5    | 750  | 700  | 4000 | 12500 | 60000  | 400000   | 6 meg.  |
| 7.5  | 150  | 800  | 5000 | 15000 | 65000  | 500000   | 7 meg.  |
| 10   | 200  | 1000 | 6000 | 17500 | 70000  | 600000   | 10 meg. |
| 15   | 250  | 1250 | 7000 | 20000 | 75000  | 750000   | 20 meg. |
| 20   | 300  | 1500 | 7500 | 22500 | 80000  | 800000   | 25 meg. |
| 25   | 350  | 2000 | 8000 | 25000 | 125000 | 1.5 meg. |         |

### TYPE BT-1/2 — 1/2 WATT

1-000. Available in all ranges from 250 ohms to 20 megohms. (Below 250 ohms use BW-1/4 units below.) 1/4" long, 1/4" dia. Specify values when ordering. **NET EACH 10c**

### TYPE BW-1/2 — 1/2 WATT

1-000. Available in all ranges from 0.5 to 750 ohms, in standard stock ranges above. Size, 1/4" x 3/4". **NET EACH 10c**

### TYPE BT-1 — 1 WATT

1-020. Available in all ranges from 350 ohms to 20 megohms. (Below 350 ohms use BW-1 units below.) Size, 1 1/4" x 3/4". Specify values when ordering. **NET EACH 12c**

### TYPE BW-1 — 1 WATT

1-080. Available in all ranges from 1 to 4000 ohms, in standard stock ranges above. Size, 1 1/4" x 3/4". **NET EACH 12c**

### TYPE BT-2 — 2 WATT

1-040. Available in all ranges from 500 ohms to 20 megohms. (Below 500 ohms use BW-2 resistors listed below.) Size, 1 1/4" x 3/4". Specify values when ordering. **NET EACH 18c**

### TYPE BW-2 — 2 WATT

1-100. Available in all ranges from 1 to 7500 ohms, in standard stock ranges above. Size, 1 1/4" x 3/4". **NET EACH 18c**

## IRC WIRE-WOUND RESISTORS

High-grade resistors on non-hygroscopic core. Have durable cement coating. Heavy terminal lugs on all except "AB" and "DG" which have strong wire leads. Units of 25 watts and up include mg. brackets. 10 watt rating above 50,000 ohms. Contact slider. Accuracy within 5%. Av. wt., 10 to 50 watt, 5 oz.; 100 to 200 watt, 1 lb.



### FIXED

| Ohms | Ohms | Ohms | Ohms | Ohms | Ohms | Ohms | Ohms  | Ohms  | Ohms   |
|------|------|------|------|------|------|------|-------|-------|--------|
| 1    | 10   | 75   | 300  | 750  | 1500 | 3500 | 7000  | 15000 | 40000  |
| 2    | 15   | 100  | 350  | 800  | 2000 | 4000 | 7500  | 20000 | 50000  |
| 3    | 25   | 150  | 400  | 1000 | 2250 | 4500 | 10000 | 25000 | 60000  |
| 5    | 25   | 200  | 500  | 1250 | 2500 | 5000 | 12000 | 30000 | 75000  |
| 7.5  | 50   | 250  | 600  | 1450 | 3000 | 6000 | 12500 | 35000 | 100000 |

### ADJUSTABLE

### FIXED RESISTORS

TYPE ABA 10 WATT—SPECIFY VALUES  
1 1/4" x 3/4". Available in all sizes shown above except 60,000, 75,000 and 100,000 ohms. 5 watt rating above 25,000 ohms. **EACH 26c**  
1-120. 12,500 to 50,000 ohms. EA. 29c

### TYPE DG 20 WATT—SPECIFY VALUES

2" x 3/4". Available in all sizes shown above except 2, 3, 7.5, 15, 20, 600 and 1450 ohms. 10 watt rating above 50,000 ohms. **EACH 41c**  
1-140. 1 to 15,000 ohms. EA. 50c  
1-140. 20,000 to 50,000 ohms. EA. 50c  
1-140. 60,000 to 100,000 ohms. EA. 65c

### TYPE EP 50 WATT—SPECIFY VALUES

4 1/4" x 3/4". In sizes indicated by \*.  
1-160. 100 to 5,000 ohms. EA. 71c  
1-160. 7,500 to 25,000 ohms. EA. 82c  
1-160. 30,000 to 100,000 ohms. EA. 94c

### TYPE HA 100 WATT—SPECIFY VALUES

6 1/4" x 1 1/4". In sizes indicated by \*.  
1-300. 100 to 5,000 ohms. EA. 97c  
1-300. 7,500 to 25,000 ohms. EA. \$1.15  
1-300. 30,000 to 50,000 ohms. EA. 1.29  
1-320. 100 to 75,000 ohms. EA. 1.42  
1-300. 100,000 ohms. EA. 1.62

### TYPE HO 200 WATT—SPECIFY VALUES

10 1/2" x 1 1/4". In sizes indicated by \*. Ideal for heavy duty uses.  
1-320. 100 to 100,000 ohms. EA. \$1.62  
1-320. 15,000 to 100,000 ohms. EA. 1.94

### ADJUSTABLE RESISTORS

TYPE ABA 10 WATT—SPECIFY VALUES  
1 1/4" x 3/4". In all sizes up to and including 10,000 ohms. With one slider. **EACH 44c**  
1-200. EA. 44c

### TYPE DHA 25 WATT—SPECIFY VALUES

2 1/4" x 3/4". In sizes indicated by \* up to and including 25,000 ohms. With 1 "X" slider. **EACH 56c**  
1-220. 100 to 5,000 ohms. EA. 56c  
1-220. 7,500 to 15,000 ohms. EA. 65c  
1-220. 20,000 to 25,000 ohms. EA. 71c

### TYPE EPA 50 WATT—SPECIFY VALUES

4 1/4" x 3/4". Available in sizes indicated by \*. With one type "X" slider. **EACH 88c**  
1-240. 100 to 5,000 ohms. EA. 88c  
1-240. 7,500 to 25,000 ohms. EA. 97c  
1-240. 30,000 to 50,000 ohms. EA. 1.12  
1-240. 60,000 to 100,000 ohms. EA. 1.25

### TYPE HAA 100 WATT—SPECIFY VALUES

6 1/4" x 1 1/4". In sizes indicated by \* except 250 ohms. With one "X" slider. **EACH \$1.29**  
1-260. 100 to 5,000 ohms. EA. 1.29  
1-260. 7,500 to 25,000 ohms. EA. 1.47  
1-260. 30,000 to 50,000 ohms. EA. 1.62  
1-260. 60,000 to 100,000 ohms. EA. 1.76

### TYPE HOA 200 WATT—SPECIFY VALUES

10 1/2" x 1 1/4". In sizes indicated by \*, except 250 ohms. With type "X" slider. **EACH \$1.94**  
1-340. 100 to 100,000 ohms. EA. 1.94  
1-340. 15,000 to 100,000 ohms. EA. 2.26

# MALLORY CONDENSERS

## TUBULAR DRY ELECTROLYTICS



Small size single and multiple units for use where your space is limited. Come with 6' flexible leads. **Note:** Capacities of same voltage are separated by a hyphen; comma used to indicate change in voltage. Shipping weight, 6 oz.

### ST—SINGLE UNITS FIG. A

| No.    | Mfd. | Wkg. V. | Type | Size          | NET    |
|--------|------|---------|------|---------------|--------|
| 17-006 | 5    | 450     | S05  | 1 1/2 x 2 1/4 | \$0.44 |
| 17-001 | 12   | 450     | S06  | 1 1/2 x 2 1/4 | .53    |
| 17-002 | 16   | 450     | S07  | 1 1/2 x 2 1/4 | .65    |

### 2N—DUAL COMMON-NEGATIVE

|        |       |     |     |               |        |
|--------|-------|-----|-----|---------------|--------|
| 17-008 | 8-8   | 450 | S18 | 1 1/2 x 2 1/4 | \$0.76 |
| 17-010 | 40-20 | 150 | S14 | 1 1/2 x 2 1/4 | .82    |
| 17-011 | 8-8   | 150 | S02 | 1 1/2 x 2 1/4 | .82    |
| 17-012 | 16-8  | 150 | S04 | 1 1/2 x 2 1/4 | .82    |
| 17-013 | 16-16 | 150 | S06 | 1 1/2 x 2 1/4 | .82    |
| 17-014 | 20-10 | 150 | S07 | 1 1/2 x 2 1/4 | .68    |
| 17-015 | 20-20 | 150 | S09 | 1 1/2 x 2 1/4 | .79    |
| 17-016 | 10-10 | 50  | 113 | 1 1/2 x 1 1/4 | .50    |
| 17-017 | 10-10 | 25  | 111 | 1 1/2 x 1 1/4 | .50    |

†Type TN card-board tubular with self-supporting bare-wire leads. Not illustrated.  
\*Figure A. †Figure B.

### 2P—DUAL COMMON-POSITIVE FIG. B

|        |       |     |     |               |        |
|--------|-------|-----|-----|---------------|--------|
| 17-022 | 16-8  | 150 | S44 | 1 1/2 x 2 1/4 | \$0.79 |
| 17-023 | 16-16 | 150 | S46 | 1 1/2 x 2 1/4 | .88    |
| 17-024 | 20-20 | 150 | S49 | 1 1/2 x 2 1/4 | .97    |

### 2S—DUAL SEPARATE-SECTION FIG. A

|        |      |     |     |               |        |
|--------|------|-----|-----|---------------|--------|
| 17-027 | 8-8  | 450 | S67 | 1 1/2 x 2 1/4 | \$0.97 |
| 17-028 | 8-16 | 450 | S63 | 1 1/2 x 3 1/4 | 1.18   |

### 3S—TRIPLE SEPARATE-SECTION FIG. A

First section separate, others common ncs.

|        |            |         |     |                |        |
|--------|------------|---------|-----|----------------|--------|
| 17-031 | 8-8,<br>20 | 450, 25 | 579 | 1 1/2 x 2 1/4' | \$1.18 |
| 17-032 | 8-8-8      | 450     | 584 | 1 1/2 x 3'     | 1.32   |

## CARDBOARD CARTON TYPE



With mounting flanges, 8' color-coded leads. Conservatively rated at 525 V. peak, 450 V. DC working. Has metal-tab type mounting feet. Shpg. wt., 6 oz.

### CS—SINGLE SECTION

| No.    | Mfd. | Type | Size          | NET    |
|--------|------|------|---------------|--------|
| 17-200 | 2    | 130  | 1 1/2 x 1 1/2 | \$0.47 |
| 17-201 | 4    | 131  | 1 1/2 x 1 1/2 | .53    |
| 17-202 | 8    | 133  | 1 1/2 x 1 1/2 | .68    |
| 17-203 | 16   | 136  | 1 1/2 x 1 1/2 | 1.03   |

### CM—SEPARATE SECTIONS

|        |       |     |               |        |
|--------|-------|-----|---------------|--------|
| 17-210 | 4-4   | 170 | 1 1/2 x 1 1/2 | \$0.85 |
| 17-211 | 8-8   | 172 | 1 1/2 x 1 1/2 | 1.06   |
| 17-212 | 8-8-8 | 175 | 1 1/2 x 1 1/2 | 1.56   |

## "OT" OIL IMPREGNATED UNITS



For vibrator buffers and other high voltage uses. Hermetically sealed containers, externally insulated. Removable mounting strap. Shpg. wt., 4 oz.

### 1600 VOLTS DC WORKING

| Stock No. | Mfd.  | Type | Size          | NET  |
|-----------|-------|------|---------------|------|
| 17-035    | .002  | 370  | 1 1/2 x 1 1/2 | .32c |
| 17-036    | .003  | 377  | 1 1/2 x 1 1/2 | .32c |
| 17-037    | .005  | 371  | 1 1/2 x 1 1/2 | .32c |
| 17-038    | .008  | 372  | 1 1/2 x 1 1/2 | .35c |
| 17-039    | .01   | 373  | 1 1/2 x 1 1/2 | .40c |
| 17-040    | .0125 | 374  | 1 1/2 x 1 1/2 | .44c |
| 17-041    | .015  | 375  | 1 1/2 x 1 1/2 | .44c |
| 17-042    | .02   | 376  | 1 1/2 x 1 1/2 | .44c |

### 2000 VOLTS DC WORKING

|        |       |     |               |      |
|--------|-------|-----|---------------|------|
| 17-043 | .005  | 459 | 1 1/2 x 1 1/2 | .47c |
| 17-044 | .0075 | 460 | 1 1/2 x 1 1/2 | .50c |
| 17-045 | .01   | 461 | 1 1/2 x 1 1/2 | .53c |



## "BB" TUBULAR ELECTROLYTICS

Single condensers, excellent for general purpose use and for replacing individual sections of multiple units. Sealed into insulated tubes. Bare wire leads. Average shipping weight, 4 oz.

| No.    | Mfd. | Wkg. V. | Type | Size          | NET    |
|--------|------|---------|------|---------------|--------|
| 17-065 | 4    | 450     | 60   | 1 1/2 x 2 1/4 | \$0.41 |
| 17-066 | 8    | 450     | 61   | 1 1/2 x 2 1/4 | .44    |
| 17-067 | 10   | 450     | 62   | 1 1/2 x 2 1/4 | .47    |
| 17-068 | 12   | 450     | 63   | 1 1/2 x 2 1/4 | .53    |
| 17-069 | 16   | 450     | 64   | 1 1/2 x 2 1/4 | .65    |
| 17-070 | 4    | 350     | 40   | 1 1/2 x 1 1/4 | .41    |
| 17-071 | 8    | 350     | 41   | 1 1/2 x 1 1/4 | .41    |
| 17-072 | 12   | 350     | 42   | 1 1/2 x 1 1/4 | .50    |
| 17-073 | 16   | 350     | 44   | 1 1/2 x 1 1/4 | .50    |
| 17-074 | 8    | 250     | 31   | 1 1/2 x 1 1/4 | .35    |
| 17-075 | 12   | 250     | 33   | 1 1/2 x 1 1/4 | .47    |
| 17-076 | 16   | 250     | 34   | 1 1/2 x 1 1/4 | .53    |
| 17-077 | 4    | 150     | 20   | 1 1/2 x 1 1/4 | .29    |
| 17-078 | 8    | 150     | 21   | 1 1/2 x 1 1/4 | .32    |
| 17-079 | 12   | 150     | 22   | 1 1/2 x 1 1/4 | .35    |
| 17-080 | 16   | 150     | 24   | 1 1/2 x 1 1/4 | .41    |
| 17-081 | 20   | 150     | 25   | 1 1/2 x 1 1/4 | .44    |
| 17-082 | 30   | 150     | 26   | 1 1/2 x 1 1/4 | .47    |
| 17-083 | 40   | 150     | 27   | 1 1/2 x 1 1/4 | .47    |
| 17-084 | 5    | 50      | 11   | 1 1/2 x 1 1/4 | .29    |
| 17-085 | 10   | 50      | 13   | 1 1/2 x 1 1/4 | .32    |
| 17-086 | 15   | 50      | 14   | 1 1/2 x 1 1/4 | .35    |
| 17-087 | 50   | 50      | 17   | 1 1/2 x 1 1/4 | .44    |
| 17-088 | 10   | 25      | 12   | 1 1/2 x 1 1/4 | .29    |
| 17-089 | 25   | 25      | 15   | 1 1/2 x 1 1/4 | .35    |
| 17-090 | 50   | 25      | 17   | 1 1/2 x 1 1/4 | .44    |



## "TP" PAPER TUBULARS

Compact size paper tubular condensers, hermetically sealed for long life. Color code shows voltage rating at a glance. Shpg. wt., 4 oz.

### 600 VOLT DC TYPES

| No.    | Mfd.   | NET | No.    | Mfd. | NET |
|--------|--------|-----|--------|------|-----|
| 17-100 | .0001  | 15c | 17-114 | .025 | 15c |
| 17-101 | .00025 | 15c | 17-115 | .03  | 15c |
| 17-102 | .0005  | 15c | 17-116 | .04  | 15c |
| 17-103 | .007   | 15c | 17-117 | .05  | 15c |
| 17-104 | .008   | 18c | 17-118 | .06  | 18c |
| 17-105 | .001   | 18c | 17-119 | .075 | 18c |
| 17-106 | .002   | 18c | 17-120 | .1   | 18c |
| 17-107 | .003   | 12c | 17-121 | .15  | 24c |
| 17-108 | .004   | 12c | 17-122 | .2   | 26c |
| 17-109 | .005   | 12c | 17-123 | .25  | 26c |
| 17-110 | .006   | 12c | 17-124 | .3   | 26c |
| 17-111 | .01    | 15c | 17-125 | .4   | 35c |
| 17-112 | .015   | 15c | 17-126 | .5   | 35c |
| 17-113 | .02    | 18c | 17-127 | 1.0  | 59c |

### 400 VOLT DC TYPES

|        |      |     |        |      |      |
|--------|------|-----|--------|------|------|
| 17-140 | .01  | 18c | 17-149 | .25  | 18c  |
| 17-141 | .015 | 18c | 17-150 | .3   | 224c |
| 17-142 | .02  | 18c | 17-151 | .4   | 224c |
| 17-143 | .03  | 18c | 17-152 | .5   | 224c |
| 17-144 | .04  | 18c | 17-153 | 1.0  | 35c  |
| 17-145 | .05  | 18c | 17-154 | 1.01 | 35c  |
| 17-146 | .06  | 18c | 17-155 | 1.05 | 35c  |
| 17-147 | .1   | 15c | 17-156 | 1.1  | 32c  |
| 17-148 | .2   | 18c |        |      |      |

### 200 VOLT DC TYPES

|        |     |     |        |        |     |
|--------|-----|-----|--------|--------|-----|
| 17-165 | .05 | 12c | 17-168 | .5     | 26c |
| 17-166 | .1  | 15c | 17-169 | 1.0    | 35c |
| 17-167 | .25 | 18c | 17-170 | 25-.25 | 35c |

## HEAVY-DUTY CAPACITORS



Provide extra safety for heavy-duty filter and coupling applications. Designed primarily for public address and similar use. Fig. A is a new wooden-neck type. Dependable, yet uses minimum war materials. Wt., 6 oz.

| No.    | Mfd. | Wkg. V. | Type | Fig. | NET    |
|--------|------|---------|------|------|--------|
| 17-055 | 4    | 600     | 090  | A    | \$1.23 |
| 17-056 | 4    | 600     | 091  | A    | 1.23   |
| 17-057 | 8    | 600     | 092  | A    | 1.73   |
| 17-058 | 8    | 600     | 093  | A    | 1.85   |
| 17-059 | 8    | 500     | 682  | A    | 1.06   |
| 17-063 | 8    | 500     | 683  | B    | 1.23   |

## MALLORY ENCYCLOPEDIA

Latest edition of radio's most complete service manual. Essential service data with all references to and including Rider's Manual Vol. 12. Information on vibrators, IF peaks, volume controls, tube components, transformer and filter circuits. Includes service notes and original part numbers. Over 400 pages. 2 lbs. **95¢.**



## STANDARD "FP" CAPACITORS

Will replace over 1000 combinations. Capacities and voltages higher than specified are often desirable and can be used. Sections of equal voltage can be connected in parallel. Section not required may be left unused. **Note:** Capacities at same voltage are separated by a hyphen; comma indicates change in voltage. With bakelite mounting washers. 8 oz.



### FP5—SINGLE UNITS

| Stock No. | Type | Mfd. | Wk. V | Size    | NET    |
|-----------|------|------|-------|---------|--------|
| 17-360    | 142  | 10   | 450   | 2x1 1/2 | \$0.53 |
| 17-364    | 143  | 15   | 450   | 1x2     | .71    |
| 17-361    | 144  | 20   | 450   | 2x1 1/2 | .79    |
| 17-367    | 145  | 30   | 450   | 3x1     | .97    |
| 17-362    | 146  | 40   | 450   | 3x1 1/2 | 1.15   |
| 17-365    | 120  | 20   | 250   | 2x1 1/2 | .50    |
| 17-363    | 113  | 30   | 150   | 2x1 1/2 | .50    |
| 17-366    | 105  | 100  | 25    | 2x1 1/2 | .76    |

### FPD—DUAL UNITS

|        |     |       |     |         |        |
|--------|-----|-------|-----|---------|--------|
| 17-375 | 231 | 10-10 | 450 | 2x1 1/2 | \$0.85 |
| 17-376 | 232 | 20-20 | 450 | 2x1 1/2 | 1.13   |
| 17-377 | 217 | 20-20 | 250 | 2x1 1/2 | .79    |
| 17-378 | 208 | 20-20 | 150 | 2x1 1/2 | .71    |
| 17-379 | 21  | 30-30 | 150 | 2x1 1/2 | .79    |
| 17-380 | 21  | 50-50 | 150 | 3x1     | .94    |
| 17-381 | 202 | 40-40 | 25  | 2x1 1/2 | .71    |

### FPT—TRIPLE UNITS

|        |     |       |         |          |        |      |
|--------|-----|-------|---------|----------|--------|------|
| 17-390 | 339 | 20-20 | 450, 25 | 3x1*     | \$1.23 |      |
| 17-385 | 332 | 10-10 | 20      | 350, 25  | 2x1*   | .94  |
| 17-386 | 328 | 15-10 | 20      | 350, 25  | 2x1*   | .82  |
| 17-391 | 389 | 10-10 | 10      | 450      | 3x1*   | 1.12 |
| 17-393 | 390 | 15-15 | 10      | 450      | 3x1*   | 1.23 |
| 17-392 | 363 | 40-20 | 250     | 2x1 1/8* |        | 1.15 |
| 17-387 | 306 | 40-20 | 20      | 150, 25  | 2x1*   | .85  |
| 17-389 | 354 | 20-20 | 150     | 2x1*     |        | .85  |
| 17-388 | 351 | 20-20 | 20      | 25       | 2x1*   | .65  |

### FPQ—TRIPLE UNITS PLUS BY-PASS

|        |     |                |              |          |        |
|--------|-----|----------------|--------------|----------|--------|
| 17-420 | 416 | 40-40<br>20-20 | 350.<br>300. |          |        |
|        |     |                | 300.25       | 3x1 1/2" | \$1.65 |
| 17-421 | 424 | 15-15<br>10-20 | 450.<br>450. |          |        |
|        |     |                | 450.25       | 2x1 1/2" | 1.35   |

### MOUNTING WASHERS—CLIPS

| Type              | 1" No. | 1/2" No. | EA. |
|-------------------|--------|----------|-----|
| Bakelite Washers. | 17-400 | 17-403   | 3c  |
| Metal Washers.    | 17-401 | 17-404   | 3c  |
| Mtg. Clips.       | 17-402 | 17-405   | 6c  |

## WOODEN-NECK ELECTROLYTICS

New wooden-neck units, accurately engineered to provide absolute satisfaction. Designed to use a minimum of raw materials vital for war production. Employ impregnated cardboard tube and threaded wooden neck. Same mounting convenience as aluminum can. Replace any dry capacitor and 90% of all wet types. Wt., 6 oz.



### TYPE RS—450 VOLTS WKG.

| No.    | Mfd.  | Wkg. V. | Type | Size          | NET    |
|--------|-------|---------|------|---------------|--------|
| 17-228 | 8     | 450     | 20   | 1 1/2 x 2 1/4 | \$0.76 |
| 17-220 | 8     | 450     | 213  | 1 1/2 x 2 1/4 | .76    |
| 17-229 | 12    | 450     | 214  | 1 1/2 x 2 1/4 | 1.00   |
| 17-221 | 12    | 450     | 215  | 1 1/2 x 2 1/4 | 1.00   |
| 17-222 | 16    | 450     | 216  | 1 1/2 x 2 1/4 | 1.12   |
| 17-230 | 16    | 450     | 217  | 1 1/2 x 2 1/4 | 1.12   |
| 17-231 | 20    | 450     | 218  | 1 1/2 x 2 1/4 | 1.23   |
| 17-232 | 30    | 450     | 223  | 1 1/2 x 2 1/4 | 1.41   |
| 17-233 | 8-8   | 8.8     | 262  | 1 1/2 x 1 1/4 | .79    |
| 17-237 | 8-8-8 | 450     | 265  | 1 1/2 x 1 1/4 | 1.65   |



**SPRAGUE  
CONDENSERS**

# SPRAGUE CONDENSERS

**SPRAGUE  
CONDENSERS**



## TUBULAR BY-PASS UNITS

Compact tubular condensers. Non-inductively wound. Oil-impregnated. Type TC test voltage, 1200. A: test voltage, 800. Shpg. wt. 3 oz.

| A200 400 VOLT |      |        |        | TC 600 VOLT |      |  |  |
|---------------|------|--------|--------|-------------|------|--|--|
| No.           | EACH | Mfd.   |        | No.         | EACH |  |  |
| 15-050        |      | .0001  | 15-100 |             |      |  |  |
| 15-051        |      | .00025 | 15-101 |             |      |  |  |
| 15-052        |      | .0004  | 15-102 |             |      |  |  |
| 15-053        |      | .0005  | 15-103 |             |      |  |  |
| 15-054        |      | .001   | 15-104 |             |      |  |  |
| 15-055        |      | .002   | 15-105 |             |      |  |  |
| 15-056        |      | .003   | 15-106 |             |      |  |  |
| 15-057        |      | .004   | 15-107 |             |      |  |  |
| 15-058        |      | .005   | 15-108 |             |      |  |  |
| 15-059        |      | .006   | 15-109 |             |      |  |  |
| 15-060        |      | .01    | 15-110 |             |      |  |  |
| 15-061        |      | .02    | 15-111 |             |      |  |  |
| 15-062        |      | .03    | 15-112 | 15c         |      |  |  |
| 15-063        |      | .04    | 15-113 | 15c         |      |  |  |
| 15-064        |      | .05    | 15-114 | 15c         |      |  |  |
| 15-065        | 15c  | .06    | 15-115 | 18c         |      |  |  |
| 15-066        | 15c  | .1     | 15-116 | 18c         |      |  |  |
| 15-067        | 18c  | .25    | 15-117 | 26c         |      |  |  |
| 15-068        | 26c  | .5     | 15-118 | 35c         |      |  |  |
| 15-069        | 35c  | 1.0    | 15-119 | 69c         |      |  |  |

12.

12.

## HANDY TC 600 VOLT KITS

Variety of 600 V. tubulars. In handy carton. Stock No. Description NET

|        |                                                                                                                                               |        |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 15-085 | 5-5 mid. 600 volt units.                                                                                                                      | \$1.50 |
| 15-086 | 6-25 mid. 600 volt units.                                                                                                                     | 1.18   |
| 15-087 | 8-1 mid. 600 volt units.                                                                                                                      | 1.18   |
| 15-088 | 15-05 mid. 600 volt units.                                                                                                                    | 1.80   |
| 15-089 | 15-01 mid. 600 volt units.                                                                                                                    | 1.32   |
| 15-090 | 15-02 mid. 600 volt units.                                                                                                                    | 1.32   |
| 15-091 | A 600 V. Sprague Kit of 33 TC tubular condensers. Consists of: 2—.0001, 2—.0005, 5—.01, 5—.02, 4—.05, 8—.1, 2—.25, 1—.5 mid. Shpg. wt. 3 lbs. | \$4.20 |

NET.

## UNIVERSAL "LM" ATOMS

Mount conveniently in any position. Rugged lugs may be soldered to chassis, or anchored with screws, or extended through chassis holes and bent. Has separate positive and negative leads. All units are moisture-proofed. Wt. 6 oz.

| Stock No. | Mfd.     | Wkg. V. | Size         | NET    |
|-----------|----------|---------|--------------|--------|
| 15-270    | 8        | 450     | 1/2x2 1/2"   | \$0.44 |
| 15-271    | 16       | 450     | 1/2x2 1/2"   | .65    |
| 15-272    | 8-8      | 450     | 1x3"         | .97    |
| 15-273    | 8-16     | 450     | 1 1/2x3 1/2" | 1.18   |
| 15-274    | 16-16    | 450     | 1 1/2x3 1/2" | 1.41   |
| 15-280    | 8        | 250     | 1/2x2 1/2"   | .79    |
| 15-281    | 16-16    | 250     | 1x3"         | 1.18   |
| 15-282    | 20-16-25 | 250-25  | 1 1/2x3 1/2" | 1.47   |
| 15-286    | 40-20-25 | 250-25  | 1 1/2x3 1/2" | 1.68   |
| 15-289    | 20       | 150     | 1/2x2 1/2"   | .64    |
| 15-291    | 20-10    | 150     | 1x2 1/2"     | .97    |

## "EL" SELF-MOUNTING ELECTROLYTICS

Non-insulated, self-mounting zinc electrolytics. Mtg. lugs insert thru chassis and bend back for fast assembly. Connections made to lug terminals. Use bakelite mtg. plate below for insulation. Wt. 8 oz.

| SINGLE SECTION |          |         |          |        |
|----------------|----------|---------|----------|--------|
| No.            | Mfd.     | Wkg. V. | Size     | NET    |
| 15-470         | 10       | 450     | 1x2"     | \$0.53 |
| 15-471         | 15       | 450     | 1x2"     | .71    |
| 15-472         | 20       | 450     | 1x2"     | 1.79   |
| 15-473         | 40       | 450     | 1x2"     | 2.44   |
| 15-474         | 50       | 350     | 1x3"     | 1.03   |
| 15-475         | 60       | 250     | 1x3"     | .85    |
| 15-476         | 40       | 200     | 1x3"     | .65    |
| DUAL SECTION   |          |         |          |        |
| 15-480         | 10-10    | 450     | 1x2"     | \$0.85 |
| 15-481         | 20-20    | 450     | 1x3"     | 1.18   |
| 15-482         | 20-20    | 350     | 1x2"     | .71    |
| 15-483         | 20-20    | 150     | 1x2"     | .71    |
| 15-484         | 50-50    | 150     | 1x2"     | .94    |
| TRIPLE SECTION |          |         |          |        |
| 15-490         | 10-10-20 | 450-25  | 1x3"     | \$0.94 |
| 15-491         | 20-20-20 | 400-25  | 1x3"     | 1.23   |
| 15-492         | 10-20-20 | 350-25  | 1x2"     | .82    |
| 15-493         | 20-20-20 | 150-25  | 1x2"     | .82    |
| 15-494         | 40-20-20 | 150-25  | 1x2 1/2" | .97    |

15-499. Mtg. plate for insulating can. 3c

## MIDGET DRY ELECTROLYTICS

Guaranteed "mite-size" dry electrolytics. Perfect for all replacements. Sited to fit smallest spaces. Well insulated. Shpg. wt. 4 oz.

| Stock No. | Mfd. | Wkg. V. | Size         | NET |
|-----------|------|---------|--------------|-----|
| 15-170    | 4    | 450     | 1 1/2x1 1/2" | 41c |
| 15-171    | 8    | 450     | 1 1/2x1 1/2" | 44c |
| 15-172    | 12   | 450     | 1 1/2x1 1/2" | 53c |
| 15-173    | 16   | 450     | 1 1/2x1 1/2" | 65c |
| 15-174    | 20   | 450     | 1 1/2x1 1/2" | 71c |
| 15-180    | 4    | 350     | 3/4x1 1/2"   | 35c |
| 15-181    | 8    | 350     | 3/4x1 1/2"   | 41c |
| 15-182    | 12   | 350     | 3/4x1 1/2"   | 50c |
| 15-185    | 4    | 250     | 3/4x1 1/2"   | 32c |
| 15-186    | 8    | 250     | 3/4x1 1/2"   | 35c |
| 15-187    | 12   | 250     | 3/4x1 1/2"   | 47c |
| 15-188    | 16   | 250     | 3/4x1 1/2"   | 53c |
| 15-189    | 20   | 250     | 3/4x1 1/2"   | 59c |
| 15-190    | 40   | 250     | 3/4x1 1/2"   | 68c |
| 15-192    | 4    | 150     | 1 1/2x1 1/2" | 29c |
| 15-193    | 8    | 150     | 1 1/2x1 1/2" | 32c |
| 15-194    | 12   | 150     | 1 1/2x1 1/2" | 35c |
| 15-195    | 16   | 150     | 1 1/2x1 1/2" | 41c |
| 15-196    | 20   | 150     | 1 1/2x1 1/2" | 44c |
| 15-197    | 30   | 150     | 1 1/2x1 1/2" | 47c |
| 15-200    | 5    | 50      | 3/4x1 1/2"   | 29c |
| 15-201    | 10   | 50      | 3/4x1 1/2"   | 32c |
| 15-202    | 25   | 50      | 3/4x1 1/2"   | 41c |
| 15-203    | 50   | 50      | 3/4x1 1/2"   | 50c |
| 15-204    | 10   | 25      | 3/4x1 1/2"   | 29c |
| 15-206    | 25   | 25      | 3/4x1 1/2"   | 35c |

## DUAL CARDBOARD TUBULARS

|        |       |     |              |        |
|--------|-------|-----|--------------|--------|
| 15-220 | 8-8   | 450 | 1x2 1/2"     | \$0.76 |
| 15-221 | 8-8   | 450 | 1 1/2x2 1/2" | .97    |
| 15-222 | 8-16  | 450 | 1x2 1/2"     | .97    |
| 15-223 | 8-16  | 250 | 1x2 1/2"     | 1.76   |
| 15-224 | 8-16  | 250 | 1 1/2x2 1/2" | 1.18   |
| 15-225 | 16-16 | 250 | 1 1/2x2 1/2" | .68    |
| 15-240 | 8-16  | 200 | 1 1/2x2 1/2" | .68    |
| 15-241 | 12-12 | 200 | 1 1/2x2 1/2" | .68    |
| 15-242 | 16-16 | 200 | 1 1/2x2 1/2" | .68    |
| 15-243 | 8-8   | 150 | 1 1/2x2 1/2" | .76    |
| 15-244 | 20-20 | 150 | 1 1/2x2 1/2" | .76    |
| 15-245 | 20-20 | 150 | 1 1/2x2 1/2" | .76    |
| 15-246 | 10-10 | 50  | 1 1/2x2 1/2" | .59    |

\*Separate positive and negative leads.

## HANDY ATOM KITS

Save time and money. A few handy Sprague Atom kits will cover most replacements.

15-260. Special Atom Kit. Six popular 8 mid. 450 volt Sprague Atoms packed in a handy carton. Shpg. wt. 12 oz. NET. \$2.38

15-261. Kit of 12 Sprague Atoms. Consists of: 6—8 mid.—4 mid.—4 mid.—450 V. 1—1 mid.—2—8 mid. (150 V.) 2—10 mid. (25 V.). Wt. 1 lb. NET. \$4.25

## TYPE LD ELECTROLYTICS

Extremely popular, full sized, highest quality, standard type electrolytic condensers for general replacement and constructional use. Moderately priced. Extra surge capacity. Moisture-proofed. Conservatively rated at 450 volts working, and 525 volts surge. Card-board cases with easy mounting brackets on end; flexible pig-tail leads. Average shpg. wt. 6 oz.

| Stock No. | Mfd.  | Size-Inches      | NET    |
|-----------|-------|------------------|--------|
| 15-000    | 4     | 4 1/2x1 1/2x3/4" | \$0.53 |
| 15-001    | 8     | 4 1/2x1 1/2x3/4" | .67    |
| 15-002    | 12    | 4 1/2x1 1/2x3/4" | .82    |
| 15-003    | 16    | 4 1/2x1 1/2x3/4" | .94    |
| 15-004    | 4     | 4 1/2x1 1/2x1/4" | 1.03   |
| 15-005    | 4-4   | 4 1/2x1 1/2x1/4" | 1.03   |
| 15-006    | 8-8   | 4 1/2x1 1/2x1/4" | 1.03   |
| 15-007    | 8-8   | 4 1/2x1 1/2x1/4" | 1.06   |
| 15-008    | 8-8-8 | 4 1/2x1 1/2x1/4" | 1.56   |

## TYPE DC ELECTROLYTICS

600 V. Peak. 475 V. Wkg. Dry units. Long pushback leads and mtg. flanges. Wt. 8 oz.

| Stock No. | Mfd. | Size-Inches      | NET    |
|-----------|------|------------------|--------|
| 15-375    | 2    | 2 1/2x1 1/2x3/4" | \$0.68 |
| 15-376    | 4    | 4 1/2x1 1/2x3/4" | .82    |
| 15-377    | 8    | 4 1/2x1 1/2x3/4" | .97    |
| 15-378    | 8    | 2 1/2x1 1/2x3/4" | .97    |
| 15-381    | 4-4  | 4 1/2x1 1/2x3/4" | 1.29   |
| 15-382    | 4-8  | 4 1/2x1 1/2x3/4" | 1.29   |
| 15-383    | 8-8  | 4 1/2x1 1/2x3/4" | 1.56   |
| 15-384    | 8-8  | 4 1/2x1 1/2x3/4" | 1.56   |

## FIXED MICA CAPACITORS

High-quality condensers in molded bakelite cases. Moisture proofed. May be stacked. Fig. A. has solder lugs and is insulated for chassis or panel mounting. Tolerance  $\pm 10\%$  or 5%. Fig. B. has threaded holes for 6-32 screws.

## XFM—1000 VOLTS DC TEST

Fig. A. Working Voltage 600 volts.

| No.    | Mfd.   | NET    | No.    | Mfd. | NET    |
|--------|--------|--------|--------|------|--------|
| 15-500 | .00005 | \$0.76 | 15-511 | .003 | \$1.03 |
| 15-501 | .0001  | .76    | 15-512 | .004 | 1.18   |
| 15-502 | .0002  | .76    | 15-513 | .005 | 1.15   |
| 15-503 | .00025 | .76    | 15-514 | .006 | 1.18   |
| 15-504 | .0003  | .76    | 15-515 | .008 | 1.23   |
| 15-505 | .0004  | .76    | 15-516 | .01  | 1.29   |
| 15-506 | .0005  | .76    | 15-517 | .015 | 1.59   |
| 15-507 | .001   | .82    | 15-518 | .02  | 1.88   |
| 15-508 | .0015  | .85    | 15-519 | .025 | 2.47   |
| 15-509 | .002   | .85    | 15-520 | .01  | 2.47   |
| 15-510 | .0025  | .97    |        |      |        |

## YFM—2500 VOLTS DC TEST

Fig. A. Working Voltage 1200 volts.

|        |        |        |        |       |        |
|--------|--------|--------|--------|-------|--------|
| 15-530 | .00005 | \$0.85 | 15-538 | .002  | \$1.26 |
| 15-531 | .0001  | .85    | 15-539 | .0025 | 1.38   |
| 15-532 | .0002  | .85    | 15-540 | .003  | 1.41   |
| 15-533 | .00025 | .85    | 15-541 | .004  | 1.47   |
| 15-534 | .0003  | .85    | 15-542 | .005  | 1.53   |
| 15-535 | .0004  | .85    | 15-543 | .006  | 1.64   |
| 15-536 | .001   | .91    | 15-544 | .008  | 1.94   |
| 15-537 | .0015  | 1.18   | 15-545 | .01   | 2.23   |

## ZFM—5000 VOLTS DC TEST

Fig. A. Working Voltage 2500 volts.

|        |        |        |        |       |        |
|--------|--------|--------|--------|-------|--------|
| 15-550 | .00005 | \$0.94 | 15-557 | .0015 | \$1.47 |
| 15-551 | .0001  | .94    | 15-558 | .002  | 1.71   |
| 15-552 | .0002  | .94    | 15-559 | .0025 | 1.91   |
| 15-553 | .00025 | .94    | 15-560 | .003  | 2.06   |
| 15-554 | .0003  | .94    | 15-561 | .004  | 2.23   |
| 15-555 | .0004  | .94    | 15-562 | .005  | 2.65   |
| 15-556 | .001   | 1.18   |        |       |        |

## 7FM—1000 VOLTS DC TEST

Fig. B. Working Voltage 600 volts.

|        |        |        |        |      |        |
|--------|--------|--------|--------|------|--------|
| 15-600 | .00005 | \$0.94 | 15-610 | .004 | \$1.12 |
| 15-601 | .0001  | .94    | 15-611 | .005 | 1.29   |
| 15-602 | .00015 | .94    | 15-612 | .006 | 1.35   |
| 15-603 | .0002  | .94    | 15-613 | .008 | 1.44   |
| 15-604 | .00025 | .94    | 15-614 | .01  | 1.44   |
| 15-605 | .0003  | .94    | 15-615 | .015 | 2.00   |
| 15-606 | .001   | .94    | 15-616 | .02  | 2.18   |
| 15-607 | .0015  | 1.12   | 15-617 | .03  | 2.38   |
| 15-608 | .002   | 1.12   | 15-618 | .04  | 3.18   |
| 15-609 | .003   | 1.12   | 15-619 | .05  | 3.53   |

## 8FM—2500 VOLTS DC TEST

Fig. B. Working Voltage 1250 volts.

|        |        |        |        |      |        |
|--------|--------|--------|--------|------|--------|
| 15-630 | .00005 | \$1.03 | 15-639 | .003 | \$1.29 |
| 15-631 | .0001  | 1.03   | 15-640 | .004 | 1.41   |
| 15-632 | .00015 | 1.03   | 15-641 | .005 | 1.56   |
| 15-633 | .0002  | 1.03   | 15-642 | .006 | 1.71   |
| 15-634 | .00025 | 1.03   | 15-643 | .008 | 2.00   |
| 15-635 | .0003  | 1.03   | 15-644 | .01  | 2.23   |
| 15-636 | .0004  | 1.06   | 15-645 | .015 | 2.84   |
| 15-637 | .0005  | 1.06   | 15-646 | .02  | 3.00   |
| 15-638 | .002   | 1.18   | 15-647 | .025 | 4.41   |

## 9FM—5000 VOLTS DC TEST

# AEROVOX CONDENSERS

## PRS "DANDEES" MINIATURE DRY ELECTROLYTICS



Space-saving and low-priced hermetically-sealed tubular midget units for crowded spaces in midgets. AC-DC sets, auto radios, etc. Insulated with special varnished paper jacket. Both ends of jacket spun over rim to eliminate shorts. Properly vented for relief of gas pressure. Each unit is aged and thoroughly tested. With polarity-indicating red band on end, and 3/32" wire leads. Dual units have riveted center-mounting strap. 4 oz.

| Stock No. | Mfd.   | Wkg. V. | Size          | NET  |
|-----------|--------|---------|---------------|------|
| 13-385    | 4      | 450     | 1 1/2 x 1 1/2 | 41c  |
| 13-386    | 16     | 450     | 1 1/2 x 1 1/2 | 44c  |
| 13-387    | 12     | 450     | 1 1/2 x 1 1/2 | 53c  |
| 13-388    | 16     | 450     | 1 1/2 x 2 1/2 | 65c  |
| 13-389    | 20     | 450     | 1 1/2 x 2 1/2 | 76c  |
| 13-390    | 8-8    | 450     | 1 x 2 1/2     | 97c  |
| 13-391    | *8-8   | 450     | 1 x 2 1/2     | 97c  |
| 13-392    | *8-16  | 450     | 1 x 2 1/2     | 97c  |
| 13-393    | *8-16  | 450     | 1 x 2 1/2     | 1.35 |
| 13-400    | 4      | 350     | 1 1/2 x 1 1/2 | 35c  |
| 13-401    | 8      | 350     | 1 1/2 x 1 1/2 | 41c  |
| 13-402    | 12     | 350     | 1 1/2 x 1 1/2 | 50c  |
| 13-403    | 16     | 350     | 1 1/2 x 1 1/2 | 59c  |
| 13-404    | 24     | 350     | 1 1/2 x 1 1/2 | 65c  |
| 13-410    | 4      | 250     | 1 1/2 x 1 1/2 | 32c  |
| 13-411    | 8      | 250     | 1 1/2 x 1 1/2 | 37c  |
| 13-412    | 12     | 250     | 1 1/2 x 1 1/2 | 45c  |
| 13-413    | 16     | 250     | 1 1/2 x 1 1/2 | 53c  |
| 13-414    | *16-16 | 250     | 1 1/2 x 1 1/2 | 1.18 |
| 13-420    | *8-8   | 200     | 1 1/2 x 2 1/2 | 68c  |
| 13-421    | *8-16  | 200     | 1 1/2 x 2 1/2 | 68c  |
| 13-422    | *16-16 | 200     | 1 1/2 x 2 1/2 | 76c  |
| 13-430    | 4      | 150     | 1 1/2 x 1 1/2 | 29c  |
| 13-431    | 8      | 150     | 1 1/2 x 1 1/2 | 32c  |
| 13-432    | 12     | 150     | 1 1/2 x 1 1/2 | 35c  |
| 13-433    | 16     | 150     | 1 1/2 x 1 1/2 | 41c  |
| 13-434    | 24     | 150     | 1 1/2 x 1 1/2 | 44c  |
| 13-435    | 40     | 150     | 1 1/2 x 1 1/2 | 47c  |
| 13-436    | 40     | 150     | 1 1/2 x 2 1/2 | 59c  |
| 13-437    | 8-8    | 150     | 1 1/2 x 2 1/2 | 59c  |
| 13-438    | 8-16   | 150     | 1 1/2 x 2 1/2 | 59c  |
| 13-439    | 20-20  | 150     | 1 1/2 x 2 1/2 | 59c  |
| 13-440    | *20-20 | 150     | 1 x 2 1/2     | 97c  |
| 13-450    | 10     | 50      | 1 1/2 x 1 1/2 | 32c  |
| 13-451    | 25     | 50      | 1 1/2 x 1 1/2 | 41c  |
| 13-452    | 50     | 50      | 1 1/2 x 1 1/2 | 44c  |
| 13-453    | 100    | 50      | 1 1/2 x 1 1/2 | 51c  |
| 13-454    | 10-10  | 50      | 1 1/2 x 2 1/2 | 79c  |
| 13-460    | 10     | 25      | 1 1/2 x 1 1/2 | 29c  |
| 13-461    | 25     | 25      | 1 1/2 x 1 1/2 | 35c  |
| 13-462    | 50     | 25      | 1 1/2 x 1 1/2 | 41c  |
| 13-463    | 100    | 25      | 1 1/2 x 1 1/2 | 53c  |
| 13-464    | 10-10  | 25      | 1 1/2 x 2 1/2 | 50c  |

\*Have 4 leads, 2 for each section—less mounting strap. Other duals have common negative.

## CARDBOARD TUBULAR TYPE PR



Single and dual-section units completely sealed in sturdy cardboard tubes. For point-to-point wiring jobs where unit is supported by own connections. Ideal for by-pass and filter use. Dual-section units have three leads; single-section units have two leads. Bare wire leads are 2 1/2 inches long. Polarity-indicating markings on tubular cardboard case. Wt. 4 ozs.

| No.    | Mfd.  | Wkg. V. | Size          | NET |
|--------|-------|---------|---------------|-----|
| 13-000 | 2     | 450     | 1 1/2 x 2 1/2 | 47c |
| 13-001 | 4     | 450     | 1 1/2 x 2 1/2 | 53c |
| 13-002 | 8     | 450     | 1 1/2 x 2 1/2 | 68c |
| 13-003 | 4     | 200     | 1 1/2 x 2 1/2 | 47c |
| 13-006 | 8     | 200     | 1 1/2 x 2 1/2 | 59c |
| 13-007 | 10    | 200     | 1 1/2 x 2 1/2 | 65c |
| 13-010 | 5     | 100     | 1 1/2 x 2 1/2 | 41c |
| 13-011 | 10    | 100     | 1 1/2 x 2 1/2 | 50c |
| 13-012 | 20    | 100     | 1 1/2 x 2 1/2 | 59c |
| 13-013 | 25    | 100     | 1 1/2 x 2 1/2 | 68c |
| 13-017 | 5     | 50      | 1 1/2 x 2 1/2 | 35c |
| 13-018 | 10    | 50      | 1 1/2 x 2 1/2 | 47c |
| 13-019 | 20    | 50      | 1 1/2 x 2 1/2 | 53c |
| 13-020 | 25    | 50      | 1 1/2 x 2 1/2 | 59c |
| 13-021 | 50    | 50      | 1 1/2 x 2 1/2 | 65c |
| 13-022 | 5-5   | 50      | 1 1/2 x 2 1/2 | 35c |
| 13-025 | 5     | 25      | 1 1/2 x 2 1/2 | 35c |
| 13-026 | 10    | 25      | 1 1/2 x 2 1/2 | 41c |
| 13-027 | 20    | 25      | 1 1/2 x 2 1/2 | 44c |
| 13-028 | 25    | 25      | 1 1/2 x 2 1/2 | 47c |
| 13-029 | 50    | 25      | 1 1/2 x 2 1/2 | 53c |
| 13-030 | 5-5   | 25      | 1 1/2 x 2 1/2 | 35c |
| 13-031 | 10-10 | 25      | 1 1/2 x 2 1/2 | 53c |

## DRY ELECTROLYTICS NEW CARDBOARD CASED TYPE



A new cardboard cased electrolytic condenser with a single screw and metal cleat for universal mounting. Fits any existing hole regardless of size or shape. Replaces aluminum can vertical-mount electrolytics such as types E, F, G, GL, GLS, I, PG, PGM, etc., or equivalent in other makes. Exhaustive tests have proven this condenser to be absolutely dependable in every way. Average shipping wt., 8 oz.

### PRV 600—SINGLE SECTION 800 V. DC PEAK—600 V. DC WORKING

| Stock No. | Mfd. | Size           | NET    |
|-----------|------|----------------|--------|
| 13-570    | 8    | 1 1/2 x 4"     | \$1.26 |
| 13-571    | 8    | 1 1/2 x 4 1/2" | 1.29   |

### PRV 450—SINGLE SECTION 525 V. DC PEAK—450 V. DC WORKING

| Stock No. | Mfd. | Size       | NET    |
|-----------|------|------------|--------|
| 13-580    | 8    | 1 1/2 x 4" | \$0.88 |
| 13-581    | 12   | 1 1/2 x 4" | 1.03   |
| 13-582    | 12   | 1 1/2 x 4" | 1.03   |
| 13-583    | 16   | 1 1/2 x 4" | 1.03   |
| 13-584    | 20   | 1 1/2 x 4" | 1.03   |
| 13-585    | 24   | 1 1/2 x 4" | 1.03   |
| 13-586    | 40   | 1 1/2 x 4" | 2.12   |

### PRV 450—DOUBLE SECTION

| Stock No. | Mfd.  | Size       | NET    |
|-----------|-------|------------|--------|
| 13-580    | 8-8   | 1 1/2 x 4" | \$1.06 |
| 13-581    | 8-16  | 1 1/2 x 4" | 1.06   |
| 13-582    | 16-16 | 1 1/2 x 4" | 1.06   |
| 13-583    | 20-20 | 1 1/2 x 4" | 1.88   |

## TYPE E UNIVERSAL MOUNTING



Large metal-can dry electrolytics. Supplied with universal mounting ring for upright or inverted mounting. Multiple section units have individual sections with common negative grounded to can. 10 oz.

### 525 V. DC Peak—450 V. DC Working

| Stock No. | Mfd.   | Size           | NET    |
|-----------|--------|----------------|--------|
| 13-240    | 8      | 2 1/2 x 3 1/2" | \$0.76 |
| 13-241    | 5-15   | 2 1/2 x 4"     | 1.65   |
| 13-242    | 8-8    | 2 1/2 x 4"     | 1.29   |
| 13-243    | 16-16  | 2 1/2 x 4"     | 1.68   |
| 13-244    | 8-8-8  | 3 x 4"         | 1.91   |
| 13-245    | 9-9-18 | 3 x 4"         | 2.65   |

## CARDBOARD CASED DRY ELECTROLYTICS



Space-saver midget units. Heavy cardboard containers; thoroughly impregnated and sealed. Adjustable mounting brackets and flexible leads. Each section of multiple units has separate color-coded leads. Unit may be mounted in any position or stacked, by overlapping metal flanges. Wt. 6 oz.

### TYPE PBS-450 525 V. Peak, 450 V. DC Wkg.

| Stock No. | Mfd.  | Size          | NET    |
|-----------|-------|---------------|--------|
| 13-370    | 2     | 1 1/2 x 1 1/2 | \$0.47 |
| 13-371    | 4     | 1 1/2 x 1 1/2 | 53c    |
| 13-372    | 8     | 1 1/2 x 1 1/2 | 68c    |
| 13-373    | 12    | 1 1/2 x 1 1/2 | 76c    |
| 13-374    | 16    | 1 1/2 x 1 1/2 | 85c    |
| 13-375    | 4-4   | 1 1/2 x 2 1/2 | 97c    |
| 13-376    | 8-8   | 1 1/2 x 2 1/2 | 1.06   |
| 13-377    | 8-16  | 1 1/2 x 2 1/2 | 1.35   |
| 13-378    | 8-8-8 | 1 1/2 x 2 1/2 | 1.35   |

## OIL-IMPREGNATED OIL-FILLED TUBULARS



2000 Volts DC working. Designed for vibrator uses. Connections for use with transmitters, or high voltage amplifiers and test equipment. Hermetically sealed in insulated metal cans. With mounting strap. Wt. 4 oz.

| Stock No. | Mfd.  | Size           | NET |
|-----------|-------|----------------|-----|
| 13-350    | .0075 | 1 1/2 x 2 1/2" | 53c |
| 13-351    | .01   | 1 1/2 x 2 1/2" | 59c |
| 13-352    | .015  | 1 1/2 x 2 1/2" | 59c |
| 13-353    | .02   | 1 1/2 x 2 1/2" | 65c |
| 13-354    | .03   | 1 1/2 x 2 1/2" | 65c |
| 13-355    | .04   | 1 1/2 x 2 1/2" | 65c |
| 13-356    | .05   | 1 1/2 x 2 1/2" | 68c |

## TUBULAR PAPER CONDENSERS



Non-inductively wound and wax-impregnated. Ideal for bypass and coupling applications. Moisture proofed. 2 1/2" tinneled leads. 3 ozs.

| Stock No. | Mfd. | NET | Stock No. | Mfd. | NET |
|-----------|------|-----|-----------|------|-----|
| 13-256    | .01  | 12c | 13-262    | .06  | 15c |
| 13-258    | .02  | 12c | 13-263    | .1   | 15c |
| 13-259    | .03  | 12c | 13-265    | .25  | 15c |
| 13-260    | .04  | 12c | 13-266    | .5   | 15c |
| 13-261    | .05  | 12c | 13-267    | 1.0  | 35c |

| Stock No. | Mfd. | NET | Stock No. | Mfd. | NET |
|-----------|------|-----|-----------|------|-----|
| 13-280    | .001 | 12c | 13-288    | .02  | 12c |
| 13-281    | .002 | 12c | 13-289    | .03  | 15c |
| 13-282    | .003 | 12c | 13-290    | .04  | 15c |
| 13-283    | .004 | 12c | 13-291    | .05  | 15c |
| 13-284    | .005 | 12c | 13-292    | .06  | 18c |
| 13-285    | .006 | 12c | 13-293    | .07  | 18c |
| 13-286    | .01  | 12c | 13-295    | .25  | 26c |
| 13-287    | .015 | 12c | 13-296    | .5   | 35c |

| Stock No. | Mfd. | NET | Stock No. | Mfd. | NET |
|-----------|------|-----|-----------|------|-----|
| 13-330    | .001 | 15c | 13-338    | .01  | 24c |
| 13-331    | .002 | 15c | 13-339    | .02  | 24c |
| 13-332    | .003 | 15c | 13-337    | .05  | 26c |
| 13-333    | .005 | 15c | 13-338    | .1   | 26c |
| 13-334    | .006 | 15c |           |      |     |

## MICA CONDENSERS



Low-cost, midget condensers built of selected mica and foil. Molded bakelite casing for previous-to moisture and heat. Tested at 1,000 volts. Sizes: 1467, 2 1/2 x 1 1/2"; 1468, 3/4 x 3/4"; 1460, 1 1/2 x 1 1/2". Wt. 2 ozs.

| Cap. Mfd. | Type 1467 | Type 1468 | Type 1460 | NET EA. |
|-----------|-----------|-----------|-----------|---------|
| .00004    | 13-050    | 13-085    | 13-070    |         |
| .00005    | 13-051    | 13-086    | 13-071    |         |
| .000075   | 13-052    | 13-087    | 13-072    |         |
| .0001     | 13-053    | 13-088    | 13-073    |         |
| .00015    | 13-054    | 13-089    | 13-074    |         |
| .0002     | 13-055    | 13-090    | 13-075    |         |
| .00025    | 13-056    | 13-091    | 13-076    |         |
| .00035    | 13-057    | 13-092    | 13-077    |         |
| .0005     | 13-058    | 13-093    | 13-078    |         |
| .001      | 13-059    | 13-094    | 13-079    |         |
| .0015     | 13-060    | 13-095    | 13-080    |         |
| .002      | 13-061    | 13-096    | 13-081    |         |
| .0025     | 13-062    | 13-097    | 13-082    |         |
| .003      | 13-063    | 13-098    | 13-083    |         |

## TYPE 1450



Mica-tnfool bakelite condensers. 600 DC wkg. volt-ages. Tested at 1000 volts. 1 1/2 x 1 1/2". Wt. 2 ozs.

| No.    | Mfd.   | NET    | No.    | Mfd. | NET |
|--------|--------|--------|--------|------|-----|
| 13-110 | .0001  | 13-113 | .00025 |      |     |
| 13-111 | .00015 | 13-114 | .0004  |      |     |
| 13-112 | .0002  | 13-115 | .0005  |      |     |

| No.    | Mfd. | NET | No.    | Mfd. | NET |
|--------|------|-----|--------|------|-----|
| 13-116 | .001 | 29c | 13-120 | .005 | 41c |
| 13-117 | .002 | 32c | 13-121 | .006 | 47c |
| 13-118 | .003 | 41c | 13-122 | .01  | 59c |
| 13-119 | .004 | 41c | 13-123 | .02  | 89c |

## UNCASED PAPER UNITS FOR FILTER REPAIR



Non-inductively wound, high-grade, uncase units, neatly shaped and wrapped in black varnish-paper. Ends are pitch-sealed. Each unit moisture-proof impregnated in high melting-point wax. 8" push-back covered wire leads. Ship wt. 8 oz.

| Stock No. | Mfd.     | Size                   | NET |
|-----------|----------|------------------------|-----|
| 13-170    | 1.0 Mfd. | 2 x 2 1/2 x 1 1/2"     | 53c |
| 13-171    | 2.0 Mfd. | 3 1/2 x 1 1/2 x 1 1/2" | 82c |

| Stock No. | Mfd.     | Size                   | NET |
|-----------|----------|------------------------|-----|
| 13-172    | 1.0 Mfd. | 3 1/2 x 1 1/2 x 1 1/2" | 65c |
| 13-173    | 2.0 Mfd. | 3 1/2 x 1 1/2 x 1 1/2" | 97c |





# CORNELL - DUBILIER CONDENSERS



## TYPE BR "BLUE BEAVER" TUBULAR DRY ELECTROLYTICS

Ideal where space is limited. Patented process gives higher voltage breakdown. In cardboard-covered container, 3" leads. Shpg. wt. 4 oz.

| Stock No. | Mfd. | Wkg. V. | Size        | NET    |
|-----------|------|---------|-------------|--------|
| 14-000    | 8    | 500     | 1/2 x 1 1/4 | \$0.62 |
| 14-001    | 16   | 500     | 1/2 x 1 1/4 | .34    |
| 14-002    | 4    | 450     | 3/4 x 1 1/4 | .41    |
| 14-011    | 8    | 450     | 3/4 x 1 1/4 | .44    |
| 14-012    | 10   | 450     | 3/4 x 1 1/4 | .50    |
| 14-013    | 12   | 450     | 3/4 x 1 1/4 | .53    |
| 14-014    | 14   | 450     | 3/4 x 1 1/4 | .56    |
| 14-015    | 20   | 450     | 3/4 x 1 1/4 | .71    |
| 14-020    | 4    | 350     | 3/4 x 1 1/4 | .35    |
| 14-021    | 8    | 350     | 3/4 x 1 1/4 | .41    |
| 14-022    | 12   | 350     | 3/4 x 1 1/4 | .50    |
| 14-023    | 16   | 350     | 3/4 x 1 1/4 | .59    |
| 14-030    | 4    | 250     | 3/4 x 1 1/4 | .32    |
| 14-031    | 8    | 250     | 3/4 x 1 1/4 | .35    |
| 14-032    | 12   | 250     | 3/4 x 1 1/4 | .43    |
| 14-033    | 16   | 250     | 3/4 x 1 1/4 | .52    |
| 14-034    | 20   | 250     | 3/4 x 1 1/4 | .59    |
| 14-035    | 40   | 250     | 3/4 x 1 1/4 | .68    |
| 14-040    | 4    | 150     | 3/4 x 1 1/4 | .29    |
| 14-041    | 8    | 150     | 3/4 x 1 1/4 | .32    |
| 14-042    | 12   | 150     | 3/4 x 1 1/4 | .38    |
| 14-043    | 16   | 150     | 3/4 x 1 1/4 | .41    |
| 14-044    | 20   | 150     | 3/4 x 1 1/4 | .44    |
| 14-045    | 40   | 150     | 3/4 x 1 1/4 | .50    |
| 14-046    | 40   | 150     | 3/4 x 1 1/4 | .50    |
| 14-050    | 5    | 50      | 3/4 x 1 1/4 | .29    |
| 14-051    | 10   | 50      | 3/4 x 1 1/4 | .32    |
| 14-052    | 20   | 50      | 3/4 x 1 1/4 | .35    |
| 14-053    | 25   | 50      | 3/4 x 1 1/4 | .36    |
| 14-054    | 50   | 50      | 3/4 x 1 1/4 | .50    |
| 14-060    | 10   | 25      | 3/4 x 1 1/4 | .29    |
| 14-061    | 20   | 25      | 3/4 x 1 1/4 | .32    |
| 14-062    | 25   | 25      | 3/4 x 1 1/4 | .35    |
| 14-063    | 50   | 25      | 3/4 x 1 1/4 | .44    |

## BRL DUAL TYPE BEAVERS

Dual common-negative units. Have 8" insulated wire leads. With mounting strap. 5 oz.

| Stock No. | Mfd.  | Wkg. V. | Size          | NET    |
|-----------|-------|---------|---------------|--------|
| 14-070    | 8-8   | 450     | 1 1/2 x 3 1/2 | \$0.76 |
| 14-071    | 8-16  | 450     | 1 1/2 x 3 1/2 | .97    |
| 14-072    | 8-16  | 250     | 1 1/2 x 3 1/2 | .76    |
| 14-073    | 16-16 | 250     | 1 1/2 x 3 1/2 | .76    |
| 14-080    | 8-8   | 150     | 1 1/2 x 3 1/2 | .59    |
| 14-081    | 16-16 | 150     | 1 1/2 x 3 1/2 | .68    |
| 14-082    | 20-10 | 150     | 1 1/2 x 3 1/2 | .68    |
| 14-083    | 20-10 | 150     | 1 1/2 x 3 1/2 | .68    |
| 14-084    | 40-20 | 150     | 1 1/2 x 3 1/2 | .82    |
| 14-090    | 5-5   | 50      | 3/4 x 1 1/4   | .53    |
| 14-091    | 10-10 | 50      | 3/4 x 1 1/4   | .53    |
| 14-095    | 5-5   | 25      | 3/4 x 1 1/4   | .44    |
| 14-096    | 10-10 | 25      | 3/4 x 1 1/4   | .50    |

## AEROVOX HIGH-VOLTAGE MICA CONDENSERS

Heavy-duty mica condensers made of highest quality ruby-mica and non-magnetic foil. Suitable for all high-voltage or R.F. by-pass requirements. Sealed in bakelite cases against all climate and temperature conditions. Metal eyelet terminals tapped for 6-32 machine screws. Moisture proofed; protected against shorts. Can be stack-mounted. Size: 1 1/2 x 1 1/4 x 1 1/4. With mounting screws. Wt. 1 oz.

## TYPE 1650-1,000 V. DC PEAK

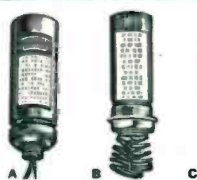
| No.    | Mfd.  | NET | No.    | Mfd. | NET    |
|--------|-------|-----|--------|------|--------|
| 73-960 | 00005 |     | 73-965 | .001 | \$0.44 |
| 73-961 | .0001 |     | 73-966 | .006 | .71    |
| 73-962 | 00015 |     | 73-967 | .01  | .97    |
| 73-963 | 00025 |     | 73-968 | .02  | 1.22   |
| 73-964 | 00035 |     | 73-969 | .05  | 2.73   |

## TYPE 1651-2,500 V. DC PEAK

| No.    | Mfd.  | NET | No.    | Mfd. | NET    |
|--------|-------|-----|--------|------|--------|
| 73-975 | 00005 |     | 73-979 | .002 | \$0.94 |
| 73-976 | 00025 |     | 73-980 | .006 | 1.23   |
| 73-977 | 0005  |     | 73-981 | .01  | 1.97   |
| 73-978 | .001  |     | 73-982 | .02  | 2.79   |

## TYPE 1652-5,000 V. DC PEAK

| No.    | Mfd.  | NET | No.    | Mfd. | NET    |
|--------|-------|-----|--------|------|--------|
| 73-985 | 00005 |     | 73-989 | .001 | \$1.06 |
| 73-986 | .001  |     | 73-990 | .006 | 1.39   |
| 73-987 | 00025 |     | 73-991 | .006 | 1.47   |
| 73-988 | 0005  |     | 73-992 | .01  | 2.88   |



## ROUND METAL CAN TYPE DRY ELECTROLYTICS

### TYPE EB—FIG. A

525 V. DC Peak—450 V. DC Working

High grade inverted type dry electrolytic condensers. Internal sections are completely insulated from metal container. Single mounting type with insulated wire leads. Exceptional stability, minimum leakage. Av. shpg. wt. 8 oz.

| Stock No. | Mfd. | Size          | NET    |
|-----------|------|---------------|--------|
| 14-140    | 8    | 1 1/2 x 4 1/2 | \$0.76 |
| 14-141    | 12   | 1 1/2 x 4 1/2 | 1.00   |
| 14-142    | 16   | 1 1/2 x 4 1/2 | 1.12   |
| 14-143    | 8-8  | 1 1/2 x 4 1/2 | 1.15   |

### TYPE KR "COMPACT"—FIG. B

Compact etched-foil dry electrolytic condensers, easily installed on the smallest chassis. Multiple units have separate leads. Wt., 4 oz.

| Stock No. | Mfd. | Size          | NET    |
|-----------|------|---------------|--------|
| 14-150    | 8    | 1 1/2 x 4 1/2 | \$0.76 |
| 14-151    | 12   | 1 1/2 x 4 1/2 | 1.00   |
| 14-152    | 16   | 1 1/2 x 4 1/2 | 1.12   |
| 14-153    | 8-8  | 1 1/2 x 4 1/2 | 1.15   |
| 14-154    | 8-16 | 1 1/2 x 4 1/2 | 1.35   |
| 14-155    | 8-16 | 1 1/2 x 4 1/2 | 1.65   |

### TYPE EA—FIG. C

Mount in any position by means of clamping rings supplied. 450 Volts DC wkg. Wt., 8 oz.

| Stock No. | Mfd.    | Size          | NET    |
|-----------|---------|---------------|--------|
| 14-170    | 8       | 1 1/2 x 4 1/2 | \$0.76 |
| 14-171    | 5-15    | 2 1/2 x 4 1/2 | 1.65   |
| 14-172    | 8-8     | 2 1/2 x 4 1/2 | 1.29   |
| 14-173    | 8-16    | 2 1/2 x 4 1/2 | 1.68   |
| 14-174    | 8-16    | 2 1/2 x 4 1/2 | 1.9    |
| 14-175    | 9-18    | 3 x 4 1/2     | 2.65   |
| 14-176    | 9-18-18 | 3 1/2 x 4 1/2 | 3.73   |

### TYPE JR

Etched foil moisture-proof "handy-mike" capacitors in cardboard boxes. Universal replacements for all radio sets. Design permits stacking of condensers. Multiple units have separate color-coded wire leads. Shpg. wt., 6 oz.

## 525 DC PEAK—450 V. DC WKG.

| Stock No. | Mfd.  | Size                  | NET    |
|-----------|-------|-----------------------|--------|
| 14-210    | 8     | 2 1/2 x 1 1/2 x 1 1/2 | \$0.68 |
| 14-211    | 12    | 2 1/2 x 1 1/2 x 1 1/2 | .91    |
| 14-212    | 16    | 2 1/2 x 1 1/2 x 1 1/2 | 1.03   |
| 14-213    | 8-8   | 2 1/2 x 1 1/2 x 1 1/2 | 1.06   |
| 14-214    | 8-8-8 | 2 1/2 x 1 1/2 x 1 1/2 | 1.56   |



## MOLDED MICA CONDENSERS

Molded units with India ruby mica dielectric, special wax-treated stack, brown bakelite cases, and positive terminal connections. Tested at 1000 V. DC (on units up to .003 mfd.; 600 V. test on higher capacities). Shpg. wt. 2 oz.

### Type 5W—1 1/2 x 1 1/2 x 1 1/2

| No.    | Mfd.   | EACH   | No.    | Mfd.  | EACH   |
|--------|--------|--------|--------|-------|--------|
| 14-100 | 000025 | \$0.15 | 14-105 | 00015 | \$0.12 |
| 14-101 | 00003  | .15    | 14-106 | .002  | .12    |
| 14-102 | 00004  | .22    | 14-107 | 00025 | .15    |
| 14-103 | 00005  | .12    | 14-108 | .004  | .15    |
| 14-104 | 0001   | .12    | 14-109 | .005  | .15    |

### TYPE 1W — 1/4 x 3/4 x 1/4

| No.    | Mfd.  | EACH   | No.    | Mfd. | EACH   |
|--------|-------|--------|--------|------|--------|
| 14-120 | .0008 | \$0.15 | 14-126 | .004 | \$0.32 |
| 14-121 | .001  | .15    | 14-127 | .005 | .35    |
| 14-122 | .0015 | .18    | 14-128 | .006 | .44    |
| 14-123 | .002  | .24    | 14-129 | .008 | .47    |
| 14-124 | .0025 | .26    | 14-130 | .01  | .53    |
| 14-125 | .03   | .29    |        |      |        |



## DT "DWARF" TUBULAR PAPER CONDENSERS

Exceptionally reliable, non-inductive, small, all-purpose condensers. Wax-impregnated and triple-sealed against moisture. High melting-point wax ends add strength and give extra protection to these condensers. Low power factor and high DC resistance make "Dwarfs" ideal for all R.F., IF, and audio by-pass needs. Conservatively rated. 2 1/2" leads. Wt., 3 oz.

## 400 VOLTS DC WORKING

| No.    | Mfd. | NET | No.    | Mfd. | NET    |
|--------|------|-----|--------|------|--------|
| 14-230 | .01  |     | 14-237 | .06  | \$0.18 |
| 14-231 | .015 |     | 14-238 | .1   | .18    |
| 14-232 | .02  |     | 14-239 | .2   | .18    |
| 14-233 | .025 |     | 14-240 | .5   | .26    |
| 14-234 | .03  |     | 14-241 | .5   | .26    |
| 14-235 | .04  |     | 14-242 | 1.0  | .35    |
| 14-236 | .05  |     |        |      |        |

## 600 VOLTS DC WORKING

| No.    | Mfd.   | NET | No.    | Mfd. | NET    |
|--------|--------|-----|--------|------|--------|
| 14-250 | 00001  |     | 14-262 | .025 | \$0.15 |
| 14-251 | 000025 |     | 14-263 | .03  | .15    |
| 14-252 | 00003  |     | 14-264 | .04  | .15    |
| 14-253 | .001   |     | 14-265 | .05  | .18    |
| 14-254 | .002   |     | 14-266 | .06  | .18    |
| 14-255 | .003   |     | 14-267 | .1   | .18    |
| 14-256 | .004   |     | 14-268 | .25  | .26    |
| 14-257 | .005   |     | 14-269 | .5   | .26    |
| 14-258 | .006   |     | 14-270 | .3   | .35    |
| 14-259 | .01    |     | 14-271 | .5   | .35    |
| 14-260 | .015   |     | 14-272 | 1-1  | .47    |
| 14-261 | .02    |     |        |      |        |

## "DTN" VIBRATOR CONDENSERS

2000 V. DC PEAK—1600 V. WKG. Oil-impregnated and processed paper tubular condensers especially suited for use in vibrator units. Withstand high peaks. Shpg. wt., 4 oz.

| No.    | Mfd.  | EACH | No.    | Mfd.  | EACH   |
|--------|-------|------|--------|-------|--------|
| 14-300 | 00005 |      | 14-309 | .007  | \$0.26 |
| 14-301 | 00008 |      | 14-310 | .0075 | .26    |
| 14-302 | .001  |      | 14-311 | .008  | .26    |
| 14-303 | .0015 |      | 14-312 | .01   | .26    |
| 14-304 | .0025 |      | 14-313 | .02   | .26    |
| 14-305 | .003  |      | 14-314 | .03   | .35    |
| 14-306 | .004  |      | 14-315 | .04   | .35    |
| 14-307 | .005  |      | 14-316 | .05   | .35    |
| 14-308 | .006  |      | 14-317 | .1    | .44    |

## TYPE EH CARDBOARD TUBULAR ELECTROLYTICS

Large electrolytics designed for heavy-duty operation. Have low-power factor and high leakage resistance. Mounting flanges have metal eyelet tabs. With 6" color-coded leads. Clearly stamped with polarity, capacity, and rating. Wt., 6 oz.



## 525 V. DC PEAK—450 V. DC WKG.

| Stock No. | Mfd. | Size                | NET    |
|-----------|------|---------------------|--------|
| 14-330    |      | 4 1/2 x 1 1/2 x 3/4 | \$0.53 |
| 14-331    | 8    | 4 1/2 x 1 1/2 x 3/4 | .68    |
| 14-332    | 8-8  | 4 1/2 x 1 1/2 x 3/4 | 1.06   |
| 14-333    | 8-8  | (4 leads)           | 1.06   |

## "SILVER MIKE" CONDENSERS

TYPE 2R. Molded silverplate mica condensers for use wherever high stability is required. 1000 Volts DC test. Size 1 1/2 x 3/4 x 1/4. 2 oz.

| No.    | Mfd.  | EACH   | No.    | Mfd.  | EACH   |
|--------|-------|--------|--------|-------|--------|
| 14-350 | 00005 | \$0.29 | 14-357 | .0004 | \$0.53 |
| 14-351 | 00007 | .29    | 14-358 | .0005 | .53    |
| 14-352 | .001  | .29    | 14-359 | .0007 | .71    |
| 14-353 | 00015 | .29    | 14-360 | .0008 | .79    |
| 14-354 | .002  | .35    | 14-361 | .0009 | .79    |
| 14-355 | 00025 | .35    | 14-362 | .001  | .88    |
| 14-356 | .003  | .53    |        |       |        |

## G-D CAPACITOR MANUAL

256-page book, the 1941 edition, listing replacement capacitors for almost every radio. Ask for it with your next order for Cornell-Dubilier condensers.

37-013. C-D Manual—sent FREE



# KNIGHT CONDENSERS

## "TINY-KNIGHT" MIDGET DRY ELECTROLYTICS



Newly developed dry electrolytics designed to fit the smallest spaces. Full capacity provided by special etched foil. Built for low leakage and to withstand high surges. Can be used to replace much larger dry electrolytics. Hermetically sealed in container with cardboard sleeve. With bare wire leads. Polarity, voltage, and capacity plainly marked. Thoroughly dependable. Solidly constructed of highest-quality materials. Designed to provide long-life and efficient, trouble-free service. Conservatively rated. Average shpg. wt., 4 oz.

| Stock No. | Mfd. | Wkg. V. | Size          | NET |
|-----------|------|---------|---------------|-----|
| 10-365    | 1    | 450     | 2"x1 1/2"     | 26c |
| 10-366    | 2    | 450     | 2"x1 1/2"     | 31c |
| 10-360    | 4    | 450     | 1 1/2"x1 1/2" | 29c |
| 10-201    | 8    | 450     | 1 1/2"x1 1/2" | 32c |
| 10-202    | 12   | 450     | 1 1/2"x1 1/2" | 40c |
| 10-203    | 16   | 450     | 1 1/2"x1 1/2" | 48c |
| 10-204    | 20   | 450     | 1 1/2"x1 1/2" | 53c |
| 10-210    | 4    | 350     | 1 1/2"x1 1/2" | 27c |
| 10-211    | 8    | 350     | 1 1/2"x1 1/2" | 30c |
| 10-212    | 12   | 350     | 1 1/2"x1 1/2" | 37c |
| 10-220    | 4    | 250     | 1 1/2"x1 1/2" | 24c |
| 10-221    | 8    | 250     | 1 1/2"x1 1/2" | 27c |
| 10-222    | 12   | 250     | 1 1/2"x1 1/2" | 30c |
| 10-223    | 16   | 250     | 1 1/2"x1 1/2" | 40c |
| 10-224    | 20   | 250     | 1 1/2"x1 1/2" | 43c |
| 10-225    | 40   | 250     | 2 1/2"x1 1/2" | 49c |
| 10-230    | 4    | 150     | 1 1/2"x1 1/2" | 22c |
| 10-231    | 8    | 150     | 1 1/2"x1 1/2" | 24c |
| 10-232    | 12   | 150     | 1 1/2"x1 1/2" | 25c |
| 10-233    | 16   | 150     | 1 1/2"x1 1/2" | 30c |
| 10-234    | 20   | 150     | 1 1/2"x1 1/2" | 31c |
| 10-235    | 30   | 150     | 1 1/2"x1 1/2" | 35c |
| 10-236    | 40   | 150     | 1 1/2"x1 1/2" | 35c |
| 10-240    | 5    | 50      | 1 1/2"x1 1/2" | 24c |
| 10-241    | 10   | 50      | 1 1/2"x1 1/2" | 26c |
| 10-242    | 25   | 50      | 1 1/2"x1 1/2" | 30c |
| 10-382    | 5    | 25      | 2"x2"         | 24c |
| 10-250    | 10   | 25      | 1 1/2"x1 1/2" | 27c |
| 10-251    | 25   | 25      | 1 1/2"x1 1/2" | 22c |

## DUAL CARDBOARD TUBULARS

|        |       |     |               |     |
|--------|-------|-----|---------------|-----|
| 10-260 | 8-8   | 450 | 2 1/2"x1 1/2" | 53c |
| 10-261 | 8-16  | 450 | 2 1/2"x1 1/2" | 58c |
| 10-265 | 8-16  | 250 | 2 1/2"x1 1/2" | 58c |
| 10-266 | 16-16 | 250 | 2 1/2"x1 1/2" | 65c |
| 10-270 | 5-16  | 200 | 2 1/2"x1 1/2" | 51c |
| 10-271 | 12-12 | 200 | 2 1/2"x1 1/2" | 51c |
| 10-272 | 16-16 | 200 | 2 1/2"x1 1/2" | 55c |
| 10-275 | 20-20 | 150 | 2 1/2"x1 1/2" | 55c |
| 10-280 | 10-10 | 50  | 2 1/2"x1 1/2" | 36c |
| 10-385 | 5-5   | 25  | 2"x2"         | 34c |
| 10-386 | 10-10 | 25  | 2"x2"         | 34c |

Deduct 10% on orders for 10 or More Knight Cardboard Tubular Electrolytics.

## KNIGHT BATHTUB CONDENSERS



Non-inductive, moisture-proof bathtub condensers with metal shell. Designed for long life. Will last for years if operated within rated voltage. Type A: 1 1/2"x1 1/2". Type B: 1 1/2"x2 1/2". Deduct 10% on orders for 10 or more. Avg. shipping weight, 6 oz.

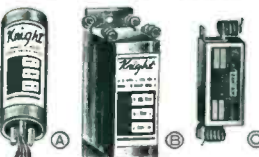
### (TYPE A)

| Stock No. | Mfd. | Volts | NET |
|-----------|------|-------|-----|
| 10-500    | .1   | 200   | 22c |
| 10-501    | .5   | 200   | 35c |
| 10-506    | .5   | 300   | 40c |
| 10-510    | .05  | 400   | 28c |
| 10-511    | .1   | 400   | 28c |
| 10-512    | .25  | 400   | 32c |
| 10-513    | 1-1  | 400   | 35c |

### (TYPE B)

| Stock No. | Mfd. | Volts | NET |
|-----------|------|-------|-----|
| 10-520    | 1.0  | 200   | 55c |
| 10-521    | 2.0  | 200   | 65c |
| 10-525    | 1.0  | 400   | 54c |
| 10-526    | .25  | 400   | 82c |
| 10-527    | .5   | 400   | 86c |

## STANDARD REPLACEMENT DRY ELECTROLYTICS



These Knight condensers are adaptable to practically any filter and by-pass application. Midget types fit smallest spaces. All units accurately rated. Have 6" color-coded, insulated leads. Standard round types have fiberboard insulated containers, and mount in 1/2" hole. Average shipping weight, 6 oz.

### 525 V. SURGE—450 V. DC WKG.

#### FIG. A. ROUND CARDBOARD

| Stock No. | Mfd. | Size, Inches  | NET    |
|-----------|------|---------------|--------|
| 10-100    | 4    | 4 1/2 x 1 1/2 | \$0.50 |
| 10-101    | 8    | 4 1/2 x 1 1/2 | .61    |
| 10-102    | 12   | 4 1/2 x 1 1/2 | .80    |
| 10-104    | 8-8  | 4 1/2 x 1 1/2 | .92    |

#### FIG. B. STANDARD CARDBOARD

|        |       |               |        |
|--------|-------|---------------|--------|
| 10-330 | 2     | 4 1/2 x 1 1/2 | \$0.31 |
| 10-331 | 4     | 4 1/2 x 1 1/2 | .41    |
| 10-332 | 8     | 4 1/2 x 1 1/2 | .58    |
| 10-333 | 10    | 4 1/2 x 1 1/2 | .62    |
| 10-334 | 16    | 4 1/2 x 1 1/2 | .78    |
| 10-340 | 4-4   | 4 1/2 x 1 1/2 | .98    |
| 10-341 | 4-8   | 4 1/2 x 1 1/2 | .82    |
| 10-342 | 8-8   | 4 1/2 x 1 1/2 | .82    |
| 10-343 | 8-8-8 | 4 1/2 x 1 1/2 | 1.19   |

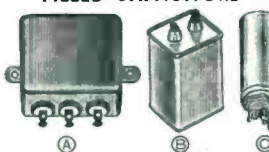
#### FIG. C. MIDGET CARDBOARD

|        |     |               |     |
|--------|-----|---------------|-----|
| 10-350 | 2   | 2 1/2 x 1 1/2 | 37c |
| 10-351 | 4   | 2 1/2 x 1 1/2 | 43c |
| 10-352 | 6   | 2 1/2 x 1 1/2 | 49c |
| 10-353 | 8   | 2 1/2 x 1 1/2 | 46c |
| 10-360 | 4-4 | 2 1/2 x 1 1/2 | 65c |
| 10-361 | 8-8 | 2 1/2 x 1 1/2 | 79c |

### Fig. B. 500 Volt Peak—475 V. DC Wkg.

|        |     |               |        |
|--------|-----|---------------|--------|
| 10-150 | 4   | 4 1/2 x 1 1/2 | \$0.59 |
| 10-151 | 8   | 4 1/2 x 1 1/2 | .84    |
| 10-152 | 8-8 | 4 1/2 x 1 1/2 | 1.13   |

## INCCO PRECISION OIL FILLED CAPACITORS



### FINEST INDUSTRIAL UNITS

Precision engineered to exacting specifications for all industrial and commercial applications. These non-corrosive capacitors are salt-water submersion proof, non-inductively wound and hermetically sealed. Built for continuous operation under severe conditions. Have extremely low power factor and high leakage resistance. Conservatively rated. Selected dielectric impregnated and filled with Incco Oil "A". BA are metal case lug-mtg. type, 6 oz. SA supplied without mfg. brackets, 10 oz. GA are tubular single-hole mounting type, with hardware. Shipping weight, 8 oz.

#### FIG. A. TYPE BA

| No.    | Mfd.    | Wkg. V. | Size          | NET    |
|--------|---------|---------|---------------|--------|
| 11-000 | .1      | 600     | 1 1/2 x 2 1/2 | \$1.03 |
| 11-011 | .25     | 600     | 1 1/2 x 2 1/2 | 1.06   |
| 11-002 | .5      | 600     | 1 1/2 x 2 1/2 | 1.15   |
| 11-003 | 1-1     | 600     | 1 1/2 x 2 1/2 | 1.29   |
| 11-004 | .25-.25 | 600     | 1 1/2 x 2 1/2 | 1.32   |
| 11-005 | .5-.5   | 600     | 1 1/2 x 2 1/2 | 1.59   |

#### FIG. B. TYPE SA

|        |   |      |               |        |
|--------|---|------|---------------|--------|
| 11-010 | 4 | 600  | 1 1/2 x 3 1/2 | \$3.23 |
| 11-011 | 8 | 600  | 1 1/2 x 3 1/2 | 6.70   |
| 11-020 | 4 | 1000 | 1 1/2 x 3 1/2 | 3.67   |
| 11-021 | 8 | 1000 | 1 1/2 x 3 1/2 | 5.29   |

#### FIG. C. TYPE GA

|        |   |     |               |        |
|--------|---|-----|---------------|--------|
| 11-022 | 4 | 600 | 1 1/2 x 5 1/2 | \$2.20 |
|--------|---|-----|---------------|--------|

## KNIGHT PERM-A-SEALD PAPER CONDENSERS



Designed for long-lived service. Unexcelled for building or repairing. Non-inductive windings; ideal for RF use. Entire unit is sealed in wax mold. Prevents breakdowns due to moisture absorption. Wire leads 2 1/2". Shpg. wt., 3 oz.

Deduct 10% on orders for 10 or more.

### 600 VOLTS DC

| Stock No. | Mfd. | Size          | EACH |
|-----------|------|---------------|------|
| 10-480    | .001 | 1 1/2 x 1 1/2 | 8c   |
| 10-481    | .002 | 1 1/2 x 1 1/2 |      |
| 10-482    | .003 | 1 1/2 x 1 1/2 |      |
| 10-483    | .004 | 1 1/2 x 1 1/2 |      |
| 10-484    | .005 | 1 1/2 x 1 1/2 |      |
| 10-485    | .006 | 1 1/2 x 1 1/2 | 10c  |
| 10-486    | .01  | 1 1/2 x 1 1/2 |      |
| 10-487    | .02  | 1 1/2 x 1 1/2 |      |
| 10-488    | .03  | 1 1/2 x 1 1/2 |      |
| 10-489    | .04  | 1 1/2 x 1 1/2 |      |
| 10-490    | .05  | 1 1/2 x 1 1/2 | 12c  |
| 10-491    | .06  | 1 1/2 x 1 1/2 |      |
| 10-492    | .1   | 1 1/2 x 2"    |      |
| 10-493    | .25  | 1 1/2 x 2"    |      |
| 10-494    | .5   | 1 1/2 x 2"    |      |

### 400 VOLTS DC

|        |      |               |     |
|--------|------|---------------|-----|
| 10-450 | .001 | 1 1/2 x 1 1/2 | 8c  |
| 10-451 | .002 | 1 1/2 x 1 1/2 |     |
| 10-452 | .003 | 1 1/2 x 1 1/2 |     |
| 10-453 | .004 | 1 1/2 x 1 1/2 |     |
| 10-454 | .005 | 1 1/2 x 1 1/2 |     |
| 10-455 | .006 | 1 1/2 x 1 1/2 | 10c |
| 10-456 | .01  | 1 1/2 x 1 1/2 |     |
| 10-457 | .02  | 1 1/2 x 1 1/2 |     |
| 10-458 | .03  | 1 1/2 x 1 1/2 |     |
| 10-459 | .04  | 1 1/2 x 1 1/2 |     |
| 10-460 | .05  | 1 1/2 x 1 1/2 | 12c |
| 10-461 | .06  | 1 1/2 x 1 1/2 |     |
| 10-462 | .1   | 1 1/2 x 2"    |     |
| 10-463 | .25  | 1 1/2 x 2"    |     |
| 10-464 | .5   | 1 1/2 x 2"    |     |
| 10-465 | 1    | 1 1/2 x 2"    | 24c |

### 200 VOLTS DC

|        |     |               |     |
|--------|-----|---------------|-----|
| 10-430 | .1  | 1 1/2 x 1 1/2 | 10c |
| 10-431 | .2  | 1 1/2 x 1 1/2 |     |
| 10-432 | .25 | 1 1/2 x 1 1/2 |     |
| 10-433 | .5  | 1 1/2 x 2"    |     |
| 10-434 | 1.0 | 1 1/2 x 2"    |     |

## PERM-A-SEALD CONDENSER KITS

Contains 12 condensers listed above, 2 lbs.

KIT No. 1. Consists of 1 each:

| Mfd. | Volts | Mfd. | Volts |
|------|-------|------|-------|
| .001 | 400   | .004 | 600   |
| .003 | 400   | .005 | 600   |
| .005 | 400   | .01  | 600   |
| .006 | 400   | .03  | 600   |
| .001 | 600   | .05  | 600   |
| .002 | 600   | .1   | 600   |

10-540. NET. 95c

KIT No. 2. Consists of 1 each:

| Mfd. | Volts | Mfd. | Volts |
|------|-------|------|-------|
| .1   | 200   | .05  | 400   |
| .25  | 200   | .06  | 400   |
| .5   | 200   | .07  | 400   |
| 1.0  | 200   | .25  | 400   |
| .01  | 400   | .5   | 400   |
| .03  | 400   | 1.0  | 400   |

10-541. NET. \$1.45

## UNCASED PAPER SECTIONS

Compact paper-cased, wax-dipped. Sealed with high melting point wax. For filter block repairing. 6" leads. Can be used to replace defective sections of multiple units. Wt., 5 oz.

| Mfd. | 200 VOLTS  | 400 VOLTS  |
|------|------------|------------|
| .5   | 10-160 22c | 10-165 24c |
| 1.0  | 10-161 29c | 10-166 36c |
| 2.0  | 10-162 46c | 10-167 65c |
| Mfd. | 600 VOLTS  | 1000 VOLTS |
| .25  | 10-170 24c | 10-175 36c |
| .5   | 10-171 31c | 10-176 53c |
| 1.0  | 10-172 43c | 10-177 78c |



# Transmitting CAPACITORS

## CORNELL-DUBILIER

### "TJU" FILTER CONDENSERS



Highest-quality condensers for industrial and transmitting applications. Impregnated with Dykano—a fire-proof, high-constant dielectric that will not deteriorate with age or heat. Dykano, made under G.E. patents, has excellent self-healing properties and will not oxidize; superior to wax, tar, oil, etc., or any ordinary dielectric compound. Universal bracket for upright or inverted mounting. Av. shipg. wt., 2 lbs.

| Stock No. | Mfd. | Wkg. V. | NET    |
|-----------|------|---------|--------|
| 73-600    | 1    | 600     | \$2.47 |
| 73-601    | 2    | 600     | 3.00   |
| 73-602    | 1    | 1000    | 3.88   |
| 73-603    | 2    | 1000    | 2.65   |
| 73-606    | 2    | 1000    | 2.65   |
| 73-607    | 4    | 1000    | 4.41   |
| 73-610    | 1    | 1500    | 3.18   |
| 73-611    | 2    | 1500    | 4.41   |
| 73-612    | 1    | 1500    | 3.88   |
| 73-615    | 1    | 2000    | 3.88   |
| 73-616    | 2    | 2000    | 4.59   |
| 73-617    | 4    | 2000    | 6.35   |
| 73-620    | 1    | 2500    | 5.64   |
| 73-621    | 2    | 2500    | 6.35   |
| 73-625    | 1    | 3000    | 8.53   |
| 73-626    | 2    | 3000    | 10.59  |

### "TLA" SERIES



Especially designed for heavy-duty requirements in transmitter or high-powered audio amplifier power supplies. Hermetically sealed in inverted-type round metal containers. Ideal for use where space is limited. Diameter of can is only 1 1/4". Dielectric is selected paper, impregnated and filled with Dykano. Single hole mount with stud and lock nut. Center lead insulated-terminal type; metal can is negative connection. Will withstand transient voltages and high-peak voltage surges. Insulating washers are supplied. Av. shipg. wt., 2 lbs.

| Stock No. | Mfd. | Wkg. V. | NET    |
|-----------|------|---------|--------|
| 73-630    | 2    | 600     | \$1.94 |
| 73-631    | 3    | 600     | 2.35   |
| 73-632    | 4    | 600     | 2.65   |
| 73-635    | 1    | 1000    | 2.76   |
| 73-636    | 2    | 1000    | 2.76   |
| 73-640    | 0.5  | 1500    | 2.12   |
| 73-641    | 1    | 1500    | 2.35   |

## FAMOUS GENERAL ELECTRIC PYRANOL-FILLED CAPACITORS



Efficient durable transmitting condensers of the best quality. These condensers will give exceptional service and long life. Filled and treated with Pyranol, a non-inflammable, non-explosive substance of unusual dielectric qualities. Hermetically sealed. Will porcelain terminal bushings. Equipped with mounting flanges for easy upright mounting. High voltage stand-off insulators.

| Stock No. | Type  | Mfd. | Wkg. V. | NET    |
|-----------|-------|------|---------|--------|
| 73-700    | 23F1  | 1    | 600     | \$2.47 |
| 73-701    | 23F2  | 2    | 600     | 3.00   |
| 73-702    | 23F4  | 4    | 600     | 3.88   |
| 73-705    | 23F10 | 1    | 1000    | 2.65   |
| 73-706    | 23F11 | 2    | 1000    | 3.53   |
| 73-707    | 23F13 | 4    | 1000    | 4.41   |
| 73-710    | 23F20 | 1    | 1500    | 3.18   |
| 73-711    | 23F21 | 2    | 1500    | 4.41   |
| 73-712    | 23F23 | 4    | 1500    | 6.00   |
| 73-715    | 23F30 | 1    | 2000    | 3.88   |
| 73-716    | 23F31 | 2    | 2000    | 4.59   |
| 73-717    | 23F33 | 4    | 2000    | 6.35   |
| 73-720    | 23F39 | 1    | 2500    | 5.64   |
| 73-721    | 23F40 | 2    | 2500    | 6.35   |
| 73-722    | 23F41 | 4    | 2500    | 12.70  |

G. E. Pyranol Transmitting Capacitors are available in ratings up to 5000 V. DC. Consult us for prices, delivery and priority required.

## MALLORY CAPACITORS



### TZ, TR AND TX SERIES

Designed for industrial, commercial, and transmitting applications. Contains "X-64", a non-oxidizing, non-polar resin of exceptional stability. May be operated up to 200° F. Power factor decreases with increasing temperature. Other features are: high insulation resistance, long life, low leakage, high dielectric constant, and small size. With clamps, Av. wt., 2 lbs.

| Stock No. | Type  | Mfd. | Wkg. V. | NET    |
|-----------|-------|------|---------|--------|
| 73-800    | TZ382 | 2    | 600     | \$1.94 |
| 73-801    | TZ383 | 1    | 600     | 2.95   |
| 73-805    | TZ384 | 1    | 1000    | 1.16   |
| 73-806    | TZ385 | 2    | 1000    | 2.29   |
| 73-810    | TZ386 | 0.5  | 1500    | 2.29   |
| 73-811    | TZ387 | 1    | 1500    | 2.29   |
| 73-815    | TR760 | 1    | 1000    | 1.94   |
| 73-816    | TR761 | 2    | 1000    | 2.65   |
| 73-817    | TR762 | 4    | 1000    | 3.35   |
| 73-820    | TR766 | 4    | 1500    | 3.35   |
| 73-821    | TR767 | 2    | 1500    | 3.35   |
| 73-825    | TR770 | 1    | 2000    | 3.18   |
| 73-826    | TR771 | 2    | 2000    | 3.53   |
| 73-830    | TR775 | 1    | 2500    | 3.53   |
| 73-835    | TX801 | 1    | 600     | 2.47   |
| 73-836    | TX802 | 2    | 600     | 3.00   |
| 73-837    | TX803 | 4    | 600     | 3.88   |
| 73-840    | TX804 | 4    | 1000    | 2.65   |
| 73-841    | TX805 | 2    | 1000    | 2.65   |
| 73-842    | TX806 | 4    | 1000    | 4.41   |
| 73-845    | TX807 | 1    | 1500    | 3.18   |
| 73-848    | TX808 | 2    | 1500    | 4.41   |
| 73-847    | TX809 | 4    | 1500    | 6.00   |
| 73-850    | TX810 | 1    | 2000    | 3.88   |
| 73-851    | TX811 | 2    | 2000    | 4.59   |
| 73-852    | TX823 | 4    | 2000    | 6.35   |
| 73-853    | TX812 | 2    | 2500    | 9.17   |
| 73-856    | TX814 | 1    | 3000    | 8.47   |
| 73-860    | TX815 | 2    | 3000    | 10.58  |

## SPECIAL VALUE 2 MFD. 1000 V. OIL-FILLED CONDENSER

Hermetically sealed, oil-impregnated 2mfd., 1000 volt transmitting condenser in a metal can. Conservatively rated for long life. With 1 1/4" porcelain terminal bushings and heavy-duty solder lugs. Equipped with universal mounting bracket for upright or inverted mounting. Size: 1 x 1 1/4 x 5/8". Shipg. wt., 2 lbs. **\$2.75**



## AEROVOX CONDENSERS

### HYVOL "05" SERIES

Increasingly popular for all transmitter requirements. These units have pure linen-paper dielectric impregnated and filled with "Hyvol" oil. All voltage ratings are consistent for continuous operation. Hermetically sealed in round metal containers. Lead terminals equipped with lock nut and solder lugs. Equally insulated by means of high-tension pillars. Mounts upright or inverted. An exceptionally high-grade transmitting condenser. With ring mount.



| Stock No. | Type | Mfd. | Wkg. V. | NET    |
|-----------|------|------|---------|--------|
| 73-900    | 05   | 1    | 600     | \$1.76 |
| 73-901    | 05   | 1    | 600     | 2.19   |
| 73-902    | 605  | 4    | 600     | 3.18   |
| 73-905    | 1005 | 1    | 1000    | 1.94   |
| 73-906    | 1005 | 1    | 1000    | 2.35   |
| 73-907    | 1005 | 4    | 1000    | 3.65   |
| 73-910    | 1505 | 1    | 1500    | 2.47   |
| 73-911    | 1505 | 2    | 1500    | 3.35   |
| 73-912    | 1505 | 4    | 1500    | 4.23   |
| 73-915    | 2005 | 1    | 2000    | 3.53   |
| 73-916    | 2005 | 2    | 2000    | 3.53   |
| 73-920    | 2505 | 1    | 2500    | 4.23   |
| 73-921    | 2505 | 2    | 2500    | 7.06   |
| 73-925    | 3005 | 1    | 3000    | 6.35   |
| 73-926    | 3005 | 2    | 3000    | 7.76   |

### HYVOL "09" SERIES

Hermetically sealed in welded steel can; universal bracket for upright or inverted mounting. Dielectric is selected paper impregnated and filled with "Hyvol," the new super-dielectric oil. For all heavy-duty requirements. Conservatively rated and dependable. High tension terminals with heavy-duty solder lugs.



| Stock No. | Type | Mfd. | Wkg. V. | NET    |
|-----------|------|------|---------|--------|
| 73-930    | 609  | 1    | 600     | \$2.47 |
| 73-931    | 609  | 2    | 600     | 3.00   |
| 73-932    | 609  | 4    | 600     | 3.88   |
| 73-935    | 1009 | 1    | 1000    | 2.65   |
| 73-936    | 1009 | 1    | 1000    | 2.65   |
| 73-937    | 1009 | 4    | 1000    | 4.41   |
| 73-940    | 1509 | 1    | 1500    | 3.18   |
| 73-941    | 1509 | 2    | 1500    | 4.41   |
| 73-942    | 1509 | 4    | 1500    | 6.00   |
| 73-945    | 2009 | 1    | 2000    | 3.88   |
| 73-946    | 2009 | 2    | 2000    | 4.59   |
| 73-950    | 2509 | 1    | 2500    | 5.64   |
| 73-951    | 2509 | 2    | 2500    | 6.35   |
| 73-955    | 3009 | 1    | 3000    | 8.47   |
| 73-956    | 3009 | 2    | 3000    | 10.58  |

Transmitting capacitors are currently available only on priorities. For best service please extend your highest authorized rating.

## SANGAMO MICA CAPACITORS



(A)

Threaded holes for 6-32 screws permit stacking. Bakelite case; ruby-mica dielectric. Accurate within 10%. Fig. A. Average shipg. wt., 2 oz.

| 600 V. DC WKG. |        |        | 1200 V. DC WKG. |        |        |
|----------------|--------|--------|-----------------|--------|--------|
| No.            | Mfd.   | NET    | No.             | Mfd.   | NET    |
| 74-000         | .00005 | \$0.41 | 74-030          | .00005 | \$0.47 |
| 74-001         | .0001  | .41    | 74-031          | .0001  | .47    |
| 74-002         | .00015 | .41    | 74-032          | .0002  | .47    |
| 74-003         | .0002  | .41    | 74-033          | .00025 | .47    |
| 74-004         | .00025 | .41    | 74-034          | .0005  | .47    |
| 74-005         | .0005  | .41    | 74-035          | .001   | .47    |
| 74-006         | .001   | .41    | 74-036          | .002   | .47    |
| 74-007         | .0015  | .41    | 74-037          | .004   | 1.03   |
| 74-008         | .002   | .44    | 74-038          | .005   | 1.15   |
| 74-009         | .0025  | .50    | 74-039          | .006   | 1.15   |
| 74-010         | .005   | .56    | 74-040          | .008   | 1.15   |
| 74-011         | .005   | .56    | 74-041          | .01    | 1.82   |
| 74-012         | .006   | .56    |                 |        |        |
| 74-013         | .008   | .79    |                 |        |        |
| 74-014         | .01    | .91    |                 |        |        |
| 74-015         | .02    | 1.21   |                 |        |        |
| 74-016         | .025   | 1.50   |                 |        |        |
| 74-017         | .03    | 1.82   |                 |        |        |
| 74-018         | .05    | 2.50   |                 |        |        |
| 74-019         | .05    | 2.50   |                 |        |        |
|                |        |        | 74-050          | .00005 | \$0.59 |
|                |        |        | 74-051          | .0001  | .59    |
|                |        |        | 74-052          | .00015 | .59    |
|                |        |        | 74-053          | .0002  | .59    |
|                |        |        | 74-054          | .00025 | .68    |
|                |        |        | 74-055          | .0005  | .68    |
|                |        |        | 74-056          | .001   | .97    |
|                |        |        | 74-057          | .002   | 1.47   |
|                |        |        | 74-058          | .005   | 2.15   |
|                |        |        | 74-059          | .01    | 2.68   |

|                                    |       |
|------------------------------------|-------|
| 74-170. Sangamo<br>resistor clips. |       |
| Net. per pair.                     | — .60 |

Fully insulated to permit mounting directly on chassis or panel by means of the 2 ear-type holes. 2 solder lugs. Fig. H. Shipg. wt., 2 oz.

| 600 V. DC WKG.                                                    |        |        | 1200 V. DC WKG. |        |        |
|-------------------------------------------------------------------|--------|--------|-----------------|--------|--------|
| No.                                                               | Mfd.   | NET    | No.             | Mfd.   | NET    |
| 74-100                                                            | .00005 | \$0.32 | 74-130          | .00005 | \$0.47 |
| 74-101                                                            | .0001  | .32    | 74-131          | .0001  | .47    |
| 74-102                                                            | .0002  | .32    | 74-132          | .0002  | .47    |
| 74-103                                                            | .00025 | .32    | 74-133          | .00025 | .47    |
| 74-104                                                            | .0003  | .32    | 74-134          | .0005  | .47    |
| 74-105                                                            | .0004  | .32    | 74-135          | .001   | .59    |
| 74-106                                                            | .0005  | .32    | 74-136          | .002   | .88    |
| 74-107                                                            | .001   | .32    | 74-137          | .003   | 1.03   |
| 74-108                                                            | .0015  | .32    | 74-138          | .004   | 1.03   |
| 74-109                                                            | .002   | .38    | 74-139          | .005   | 1.15   |
| 74-110                                                            | .0025  | .44    | 74-140          | .006   | 1.15   |
| 74-111                                                            | .003   | .47    | 74-141          | .008   | 1.47   |
| 74-112                                                            | .004   | .47    | 74-142          | .01    | 1.82   |
| 74-113                                                            | .005   | .47    |                 |        |        |
| 74-114                                                            | .006   | .56    |                 |        |        |
| 74-115                                                            | .008   | .65    |                 |        |        |
| 74-116                                                            | .01    | .76    |                 |        |        |
| 74-117                                                            | .015   | .88    |                 |        |        |
| 74-118                                                            | .02    | 1.03   |                 |        |        |
| 74-119                                                            | .025   | 1.23   |                 |        |        |
| 74-120                                                            | .03    | 1.38   |                 |        |        |
| Mica capacitors only<br>available on highest<br>priority ratings. |        |        |                 |        |        |
|                                                                   |        |        | 2500 V. DC WKG. |        |        |
|                                                                   |        |        | 74-150          | .00005 | \$0.59 |
|                                                                   |        |        | 74-151          | .0001  | .59    |
|                                                                   |        |        | 74-152          | .0002  | .71    |
|                                                                   |        |        | 74-153          | .00025 | .71    |
|                                                                   |        |        | 74-154          | .0005  | .82    |
|                                                                   |        |        | 74-155          | .001   | .91    |
|                                                                   |        |        | 74-156          | .002   | 1.47   |
|                                                                   |        |        | 74-157          | .003   | 1.79   |
|                                                                   |        |        | 74-158          | .004   | 2.06   |
|                                                                   |        |        | 74-159          | .005   | 2.15   |

Mica capacitors only available on highest priority ratings.

## STANDARD MIDGET RADIOHM



Bakelite case, 1 1/4" diameter. Metal shaft is 1/4" dia. x 3 1/2" long. For use with push-on or set-screw type knob. Ground lug supplied. High quality all-purpose controls. Wt., 4 oz.

| Cat. No. | CRL Type | Max. Res. Ohms | Taper No. | Cat. No. | CRL Type |
|----------|----------|----------------|-----------|----------|----------|
| 27-800   | NF106    | 5000           | 1         | 27-025   | PF106    |
| 27-801   | NF107    | 10000          | 1         | 27-026   | PF107    |
| 27-802   | NF108    | 10000          | 3         | 27-027   | PF108    |
| 27-803   | NF108    | 10000          | 4         | 27-028   | PF108    |
| 27-804   | N109     | 10000          | 6         | 27-029   | P109     |
| 27-805   | NF110    | 15000          | 3         | 27-030   | PF110    |
| 27-806   | NF111    | 15000          | 4         | 27-031   | PF111    |
| 27-807   | NF112    | 15000          | 3         | 27-032   | PF112    |
| 27-808   | NF113    | 25000          | 1         | 27-033   | PF113    |
| 27-809   | NF101    | 25000          | 3         | 27-034   | PF101    |
| 27-810   | N114     | 50000          | 1         | 27-035   | P114     |
| 27-811   | N115     | 50000          | 6         | 27-036   | P115     |
| 27-812   | N116     | 100000         | 1         | 27-037   | P116     |
| 27-813   | N117     | 100000         | 6         | 27-038   | P117     |
| 27-814   | N102     | 250000         | 6         | 27-039   | P102     |
| 27-815   | N118     | 50000          | 1         | 27-040   | P118     |
| 27-816   | N103     | 500000         | 6         | 27-041   | P103     |
| 27-817   | N104     | 1 Meg.         | 6         | 27-042   | P104     |

Less Switch. NET EACH. **59c** With Switch. NET EACH. **88c**

## TAPPED MIDGET RADIOHMS

| Less Switch | CRL Type | Max. Res. | Tap. Res. | With Switch | CRL Type |
|-------------|----------|-----------|-----------|-------------|----------|
| 27-050      | NT119    | 250M      | 75M       | 27-070      | PT119    |
| 27-051      | NT147    | 250M      | 125M      | 27-071      | PT147    |
| 27-052      | NT148    | 350M      | 75M       | 27-072      | PT148    |
| 27-053      | NT120    | 500M      | 150M      | 27-073      | PT120    |
| 27-054      | NT149    | 500M      | 150M      | 27-074      | PT149    |
| 27-055      | NT150    | 1 Meg.    | 200M      | 27-075      | PT150    |
| 27-056      | NT121    | 1 Meg.    | 300M      | 27-076      | PT121    |
| 27-057      | NT151    | 2 Meg.    | 400M      | 27-077      | PT151    |
| 27-058      | NT152    | 2 Meg.    | 400M      | 27-078      | PT152    |
| 27-059      | NT122    | 2 Meg.    | 600M      | 27-079      | PT122    |
| 27-060      | NT153    | 3 Meg.    | 600M      | 27-080      | PT153    |
| 27-061      | NT154    | 2 Meg.    | 27-081    | PT154       |          |

Less Switch. NET EACH. **88c** With Switch. NET EACH. **\$1.18**

## MIDGET SWITCH COVERS

Underwriters' Approved bakelite midget switch cover. \*For use with battery-radio circuits. Snap-on type for easy attachment. Wt., 3 oz.

| No.     | Type | Kind              | NET |
|---------|------|-------------------|-----|
| 27-090. | K155 | SPST. (Standard)  | 35c |
| 27-092. | K157 | DPST              | 35c |
| 27-093. | K159 | SPST. (Dummy Lug) | 35c |
| 27-094. | K158 | Four Point        | 35c |

## SPLIT KNURL MIDGET RADIOHM



For radio receivers employing knurled shaft used with special push-on knob. Fixed steel shaft, 2 1/4" long. For switch type add the midget switch covers above. Number 27-143 is tapped at 150 M.; 27-144 at 300 M.; 27-145 at 75 M.; 27-149 at 600 M. Shpg. wt., 6 oz.

| No.    | Type   | Ohms   | Kind   | EACH       |
|--------|--------|--------|--------|------------|
| 27-138 | NK-136 | 10000  | Plain  | <b>59c</b> |
| 27-140 | NK-137 | 25000  | Plain  |            |
| 27-141 | NK-138 | 50000  | Plain  |            |
| 27-142 | NK-139 | 100000 | Plain  | <b>59c</b> |
| 27-143 | NK-140 | 500000 | Plain  |            |
| 27-144 | NK-141 | 1 Meg. | Plain  |            |
| 27-145 | NK-142 | 2 Meg. | Plain  | <b>88c</b> |
| 27-146 | NK-143 | 3 Meg. | Plain  |            |
| 27-147 | NK-144 | 500000 | Tapped |            |
| 27-148 | NK-145 | 250000 | Tapped | <b>88c</b> |
| 27-149 | NK-146 | 1 Meg. | Tapped |            |
| 27-150 | NK-147 | 2 Meg. | Tapped |            |

## CENTRALAB STANDARD RADIOHM



Centralab Radiohms use the famous patented walt-type resistor which lugs inner circumference of the black molded bakelite case. This exclusive non-rubbing contact band assures quiet, smooth rotation and long life. Case size: 1 1/4" dia. and 3/4" deep. The 1/4" dia. metal shaft extends 3 1/2" from case. It is milled full length for push-on or set-screw type knobs. All controls are carbon type. See below for explanation of taper. Supplied with mounting nut. Wt., less switch, 5 oz.; with switch, 7 oz. CRL type numbers given below are the new CRL numbers. You may order by these or by the old CRL numbers.

| Cat. No. | New CRL No. | Max. Res. Ohms | Taper No. | Cat. No. | New CRL No. |
|----------|-------------|----------------|-----------|----------|-------------|
| 27-200   | A-100       | 500            | 1         | 27-230   | B-100       |
| 27-201   | A-101       | 1000           | 1         | 27-231   | B-101       |
| 27-202   | A-102       | 2000           | 1         | 27-232   | B-102       |
| 27-203   | A-103       | 3000           | 1         | 27-233   | B-103       |
| 27-204   | A-104       | 4000           | 1         | 27-234   | B-104       |
| 27-205   | AF-105      | 5000           | 1         | 27-235   | BF-105      |
| 27-206   | A-106       | 5000           | 6         | 27-236   | B-106       |
| 27-207   | AF-107      | 7500           | 1         | 27-237   | BF-107      |
| 27-208   | A-108       | 10000          | 1         | 27-238   | B-108       |
| 27-209   | AF-109      | 10000          | 3         | 27-239   | BF-109      |
| 27-210   | AF-110      | 10000          | 4         | 27-240   | BF-110      |
| 27-211   | A-111       | 10000          | 6         | 27-241   | B-111       |
| 27-212   | AF-112      | 15000          | 3         | 27-242   | BF-112      |
| 27-213   | AF-113      | 15000          | 4         | 27-243   | BF-113      |
| 27-214   | AF-114      | 20000          | 3         | 27-244   | BF-114      |
| 27-215   | AF-115      | 25000          | 1         | 27-245   | BF-115      |
| 27-216   | AF-116      | 25000          | 4         | 27-246   | BF-116      |
| 27-217   | AF-117      | 25000          | 3         | 27-247   | BF-117      |
| 27-218   | A-118       | 50000          | 1         | 27-248   | B-118       |
| 27-219   | A-119       | 50000          | 6         | 27-249   | B-119       |
| 27-220   | A-120       | 75000          | 6         | 27-250   | B-120       |
| 27-221   | AF-121      | 75000          | 4         | 27-251   | BF-121      |
| 27-222   | A-122       | 100000         | 1         | 27-252   | B-122       |
| 27-223   | A-123       | 100000         | 6         | 27-253   | B-123       |
| 27-224   | A-124       | 150000         | 1         | 27-254   | B-124       |
| 27-225   | A-125       | 200000         | 1         | 27-255   | B-125       |
| 27-226   | AF-126      | 200000         | 4         | 27-256   | BF-126      |
| 27-227   | A-127       | 250000         | 6         | 27-257   | B-127       |
| 27-228   | A-128       | 500000         | 1         | 27-258   | B-128       |
| 27-229   | A-129       | 500000         | 4         | 27-259   | B-129       |
| 27-230   | A-130       | 500000         | 6         | 27-260   | B-130       |
| 27-231   | A-131       | 750000         | 6         | 27-261   | B-131       |
| 27-232   | A-132       | 1 Meg.         | 6         | 27-262   | B-132       |
| 27-233   | A-133       | 1 Meg.         | 6         | 27-263   | B-133       |
| 27-234   | A-134       | 3 Meg.         | 6         | 27-264   | B-134       |

LESS SWITCH. NET EACH. **59c** WITH SWITCH. NET EACH. **88c**

## TAPPED RADIOHMS

Standard units with taps for tone compensation. Taper No. 10. See explanation below.

|        |        |        |    |        |        |
|--------|--------|--------|----|--------|--------|
| 27-247 | A-135  | 250000 | 10 | 27-265 | BT-135 |
| 27-248 | AT-136 | 500000 | 10 | 27-266 | BT-136 |
| 27-249 | AT-137 | 1 Meg. | 10 | 27-267 | BT-137 |
| 27-250 | AT-138 | 2 Meg. | 10 | 27-268 | BT-138 |

LESS SWITCH. NET EACH. **88c** WITH SWITCH. NET EACH. **\$1.18**

## STANDARD SWITCH COVERS

Underwriters' Approved. Bakelite insulated switch mounted on snap-on type plate. Convert any plain Radiohm to switch type.

| No. | Type | Kind | NET |
|-----|------|------|-----|
|-----|------|------|-----|

|         |     |                         |     |
|---------|-----|-------------------------|-----|
| 27-270. | K10 | SPST Standard           | 29c |
| 27-271. | K11 | SPST 3 Lugs             | 35c |
| 27-272. | K12 | DPST 4 Lugs             | 35c |
| 27-273. | K16 | SPDT Clockwise          | 35c |
| 27-274. | K17 | SPST Dummy Lug          | 35c |
| 27-275. | K15 | 4 Point (for Batt. Sec) | 35c |

## EXPLANATION OF TAPERS

The resistance curve of a volume control is as important as its maximum resistance. The proper curve permits best possible results from any receiver or amplifier circuit or laboratory equipment. Standard applications of each taper are as follows: (1) Voltage divider with uniform resistance change. Use as regeneration or screen grid pot. (2) Antenna and cathode bias control of one or two tubes, no bleeder current. (3) Antenna and cathode bias control of one or two tubes, with bleeder current. Will carry much more current in C-bias than taper 3. (4) Audio grid, antenna or tone control. (10) Audio grid volume control tapped for tone compensation.

## STANDARD ELF RADIOHM



Compact. Ideal for portables and auto sets. Shaft will take either push-on or standard set screw knobs. Size, 3/4" dia., 2 1/4" deep, less switch. Shpg. wt., 4 oz.

## SPECIFY TYPES AND VALUES DESIRED

| Type    | Ohms | Type  | Ohms    | Stock No.   |
|---------|------|-------|---------|-------------|
| LT-100* | 10M  | L-103 | 500M    | 27-325      |
| LT-101* | 25M  | L-106 | 1 Meg.  | <b>EACH</b> |
| LT-102  | 50M  | L-107 | 2 Megs. |             |
| L-103   | 100M | L-108 | 3 Megs. |             |
| LT-104  | 250M |       |         |             |

## "ELF" RADIOHMS WITH TAP

| CRL Type | Maximum Resistance | Tap Resistance | Stock No.   |
|----------|--------------------|----------------|-------------|
| LT-150   | 250M               | 75M            | 27-340      |
| LT-151   | 500M               | 150M           | <b>EACH</b> |
| LT-152   | 1 Meg.             | 300M           |             |
| LT-153   | 1 Meg.             | 300M           |             |
| LT-154   | 2 Megs.            | 600M           | <b>EACH</b> |
| LT-155   | 2 Megs.            | 600M           |             |
| LT-156   | 2 Megs.            | 600M           |             |

27-351. SPST Switch. NET. 29c

27-350. SPST Switch with dummy lug. 35c

\*Taper 4, †Taper 1. All other taper 6.

See below for explanation of tapers.

## STANDARD ROUND SHAFT RADIOHM



These controls are identical with the standard Radiohms on this page but have 2 1/4" shaft. Grooved every 1/4". Easy to cut shaft. See explanation of tapers below. Less Switch. May be converted to switch type by adding any switch cover as listed in center column. 5 oz.

| No.    | Type   | Ohms    | Taper | NET         |
|--------|--------|---------|-------|-------------|
| 27-300 | AS-139 | 10000   | 1     | <b>EACH</b> |
| 27-301 | AS-140 | 25000   | 1     |             |
| 27-302 | AS-141 | 50000   | 1     |             |
| 27-303 | AS-142 | 100000  | 1     | <b>EACH</b> |
| 27-304 | AS-143 | 100000  | 6     |             |
| 27-305 | AS-144 | 250000  | 1     |             |
| 27-306 | AS-145 | 250000  | 6     | <b>59c</b>  |
| 27-307 | AS-146 | 500000  | 1     |             |
| 27-308 | AS-147 | 500000  | 6     |             |
| 27-309 | AS-148 | 1 Meg.  | 6     | <b>59c</b>  |
| 27-310 | AS-149 | 5 Meg.  | 6     |             |
| 27-311 | AS-150 | 10 Meg. | 6     |             |

## WIRE-WOUND RADIOHMS

Similar in design and size to Standard Radiohms in center column, but wire wound. Have linear taper. Less switch (see center column for switches). Rated at 3 watts. Shpg. wt., 6 oz.

| For switches). Rated at 3 watts. Shpg. wt., 6 oz. |              |             |              |             |              |
|---------------------------------------------------|--------------|-------------|--------------|-------------|--------------|
| CRL<br>Type                                       | Res.<br>Ohms | CRL<br>Type | Res.<br>Ohms | CRL<br>Type | Res.<br>Ohms |
| V100                                              | 2            | V114        | 40           | V128        | 750          |
| V102                                              | 4            | V116        | 50           | VF129       | 1000         |
| V104                                              | 6            | V117        | 60           | VF131       | 2000         |
| V106                                              | 8            | V118        | 75           | VF133       | 3000         |
| V108                                              | 10           | V121        | 100          | VF134       | 4000         |
| V109                                              | 15           | V123        | 200          | VF135       | 5000         |
| V110                                              | 20           | V125        | 300          | VF136       | 7500         |
| V111                                              | 25           | V126        | 400          | VF137       | 10000        |

27-100. Specify Type Number and Value when ordering the above controls. **59c**



# SPECIAL PURPOSE VOLUME CONTROLS



## CRL GUIDE

Tenth Edition CRL Volume Control Guide. Over 20,000 listings (35¢, all new). Proper CRL control and other data is given for each model received. This valuable Guide is offered free. Use with listings below to identify CRL type no. for your radio set. Pages 37-070. Sent FREE.

## EXACT DUPLICATE CRL VOLUME CONTROLS

For exact duplicates, see your CRL Guide to find type No. of control you require. We will supply exact duplicate controls while they last. Afterwards, standard controls of same characteristics will be furnished. Minor shaft adjustments will make these adaptable.

| CRL Type | Stock No. | NET   | CRL Type | Stock No. | NET    |
|----------|-----------|-------|----------|-----------|--------|
| 24-016   | 27-934    | 50.88 | F-163    | 27-673    | \$1.47 |
| 25-026   | 27-515    | 1.47  | F-164    | 27-682    | 1.47   |
| 26-012   | 28-085    | .88   | F-166    | 27-726    | 1.47   |
| 26-042   | 28-249    | 1.18  | F-167    | 27-582    | 1.47   |
| 27-063   | 27-762    | .88   | G-120    | 28-590    | 1.76   |
| 27-112   | 27-510    | .88   | G-125    | 28-515    | 1.76   |
| 27-159L  | 28-109    | .88   | G-126    | 28-017    | 1.76   |
| 27-160   | 28-109    | .88   | G-128    | 28-152    | 1.76   |
| 27-161   | 28-105    | .88   | R-100    | 28-900    | .88    |
| 27-162   | 28-105    | .88   | R-101    | 28-900    | .88    |
| 27-177   | 27-581    | .88   | R-110    | 27-674    | .88    |
| 27-181   | 27-769    | .88   | R-103    | 27-885    | .88    |
| 27-205   | 28-113    | .88   | R-104    | 27-888    | .88    |
| 27-206   | 28-112    | .88   | R-107    | 27-888    | .88    |
| 27-207   | 27-521    | 1.47  | R-108    | 27-888    | .88    |
| 27-209   | 27-521    | 1.47  | R-109    | 27-671    | .88    |
| 27-514   | 27-704    | 1.47  | R-110    | 27-893    | .88    |
| 27-517   | 27-706    | 1.47  | R-111    | 27-893    | .88    |
| 27-518   | 27-706    | 1.47  | R-112    | 27-893    | .88    |
| 27-524   | 28-010    | 1.47  | R-113    | 27-898    | .88    |
| 27-526   | 27-661    | 1.47  | R-114    | 28-104    | .88    |
| 27-559   | 27-934    | 1.47  | R-115    | 27-899    | .88    |
| 27-579   | 27-876    | 1.47  | R-116    | 27-861    | .88    |
| 27-580   | 28-192    | 1.47  | R-117    | 27-861    | .88    |
| 27-600   | 28-005    | .88   | R-118    | 27-869    | .88    |
| 27-543   | 28-872    | 1.76  | R-119    | 27-862    | .88    |
| 27-544   | 27-913    | .88   | R-120    | 27-862    | .88    |
| 27-545   | 28-101    | 1.76  | R-121    | 27-668    | .88    |
| 27-546   | 28-101    | 1.76  | R-122    | 27-676    | .88    |
| 27-547   | 27-763    | .88   | R-123    | 27-675    | .88    |
| 27-548   | 27-763    | .88   | R-124    | 27-675    | .88    |
| 27-549   | 27-763    | .88   | R-125    | 28-217    | .88    |
| 27-550   | 27-763    | .88   | R-126    | 28-815    | .88    |
| 27-551   | 27-763    | .88   | R-127    | 27-667    | .88    |
| 27-552   | 27-763    | .88   | R-128    | 27-668    | .88    |
| 27-553   | 27-763    | .88   | R-129    | 27-668    | .88    |
| 27-554   | 27-763    | .88   | R-130    | 27-668    | .88    |
| 27-555   | 27-763    | .88   | R-131    | 27-668    | .88    |
| 27-556   | 27-763    | .88   | R-132    | 27-668    | .88    |
| 27-557   | 27-763    | .88   | R-133    | 27-668    | .88    |
| 27-558   | 27-763    | .88   | R-134    | 27-668    | .88    |
| 27-559   | 27-763    | .88   | R-135    | 27-668    | .88    |
| 27-560   | 27-763    | .88   | R-136    | 27-668    | .88    |
| 27-561   | 27-763    | .88   | R-137    | 27-668    | .88    |
| 27-562   | 27-763    | .88   | R-138    | 27-668    | .88    |
| 27-563   | 27-763    | .88   | R-139    | 27-668    | .88    |
| 27-564   | 27-763    | .88   | R-140    | 27-668    | .88    |
| 27-565   | 27-763    | .88   | R-141    | 27-668    | .88    |
| 27-566   | 27-763    | .88   | R-142    | 27-668    | .88    |
| 27-567   | 27-763    | .88   | R-143    | 27-668    | .88    |
| 27-568   | 27-763    | .88   | R-144    | 27-668    | .88    |
| 27-569   | 27-763    | .88   | R-145    | 27-668    | .88    |
| 27-570   | 27-763    | .88   | R-146    | 27-668    | .88    |
| 27-571   | 27-763    | .88   | R-147    | 27-668    | .88    |
| 27-572   | 27-763    | .88   | R-148    | 27-668    | .88    |
| 27-573   | 27-763    | .88   | R-149    | 27-668    | .88    |
| 27-574   | 27-763    | .88   | R-150    | 27-668    | .88    |
| 27-575   | 27-763    | .88   | R-151    | 27-668    | .88    |
| 27-576   | 27-763    | .88   | R-152    | 27-668    | .88    |
| 27-577   | 27-763    | .88   | R-153    | 27-668    | .88    |
| 27-578   | 27-763    | .88   | R-154    | 27-668    | .88    |
| 27-579   | 27-763    | .88   | R-155    | 27-668    | .88    |
| 27-580   | 27-763    | .88   | R-156    | 27-668    | .88    |
| 27-581   | 27-763    | .88   | R-157    | 27-668    | .88    |
| 27-582   | 27-763    | .88   | R-158    | 27-668    | .88    |
| 27-583   | 27-763    | .88   | R-159    | 27-668    | .88    |
| 27-584   | 27-763    | .88   | R-160    | 27-668    | .88    |
| 27-585   | 27-763    | .88   | R-161    | 27-668    | .88    |
| 27-586   | 27-763    | .88   | R-162    | 27-668    | .88    |
| 27-587   | 27-763    | .88   | R-163    | 27-668    | .88    |
| 27-588   | 27-763    | .88   | R-164    | 27-668    | .88    |
| 27-589   | 27-763    | .88   | R-165    | 27-668    | .88    |
| 27-590   | 27-763    | .88   | R-166    | 27-668    | .88    |
| 27-591   | 27-763    | .88   | R-167    | 27-668    | .88    |
| 27-592   | 27-763    | .88   | R-168    | 27-668    | .88    |
| 27-593   | 27-763    | .88   | R-169    | 27-668    | .88    |
| 27-594   | 27-763    | .88   | R-170    | 27-668    | .88    |
| 27-595   | 27-763    | .88   | R-171    | 27-668    | .88    |
| 27-596   | 27-763    | .88   | R-172    | 27-668    | .88    |
| 27-597   | 27-763    | .88   | R-173    | 27-668    | .88    |
| 27-598   | 27-763    | .88   | R-174    | 27-668    | .88    |
| 27-599   | 27-763    | .88   | R-175    | 27-668    | .88    |
| 27-600   | 27-763    | .88   | R-176    | 27-668    | .88    |
| 27-601   | 27-763    | .88   | R-177    | 27-668    | .88    |
| 27-602   | 27-763    | .88   | R-178    | 27-668    | .88    |
| 27-603   | 27-763    | .88   | R-179    | 27-668    | .88    |
| 27-604   | 27-763    | .88   | R-180    | 27-668    | .88    |
| 27-605   | 27-763    | .88   | R-181    | 27-668    | .88    |
| 27-606   | 27-763    | .88   | R-182    | 27-668    | .88    |
| 27-607   | 27-763    | .88   | R-183    | 27-668    | .88    |
| 27-608   | 27-763    | .88   | R-184    | 27-668    | .88    |
| 27-609   | 27-763    | .88   | R-185    | 27-668    | .88    |
| 27-610   | 27-763    | .88   | R-186    | 27-668    | .88    |
| 27-611   | 27-763    | .88   | R-187    | 27-668    | .88    |
| 27-612   | 27-763    | .88   | R-188    | 27-668    | .88    |
| 27-613   | 27-763    | .88   | R-189    | 27-668    | .88    |
| 27-614   | 27-763    | .88   | R-190    | 27-668    | .88    |
| 27-615   | 27-763    | .88   | R-191    | 27-668    | .88    |
| 27-616   | 27-763    | .88   | R-192    | 27-668    | .88    |
| 27-617   | 27-763    | .88   | R-193    | 27-668    | .88    |
| 27-618   | 27-763    | .88   | R-194    | 27-668    | .88    |
| 27-619   | 27-763    | .88   | R-195    | 27-668    | .88    |
| 27-620   | 27-763    | .88   | R-196    | 27-668    | .88    |
| 27-621   | 27-763    | .88   | R-197    | 27-668    | .88    |
| 27-622   | 27-763    | .88   | R-198    | 27-668    | .88    |
| 27-623   | 27-763    | .88   | R-199    | 27-668    | .88    |
| 27-624   | 27-763    | .88   | R-200    | 27-668    | .88    |

## INDUSTRIAL AND SPECIAL PURPOSE CONTROLS

### RUGGED CENTRALAB POWER RHEOSTATS



Very rugged; ideal for many commercial uses such as motor speed control, charging rate regulator, etc. All 2" in dia. Shaft 1/4" long. 1/4" in dia. With pointer knob. Shipping weight, 1 lb.

| No.    | Type  | Ohms | No.    | Type  | Ohms |
|--------|-------|------|--------|-------|------|
| 27-400 | 48002 | 2    | 27-407 | 48150 | 150  |
| 27-401 | 48006 | 6    | 27-408 | 48250 | 250  |
| 27-402 | 48010 | 10   | 27-409 | 48400 | 400  |
| 27-403 | 48015 | 15   | 27-410 | 48500 | 500  |
| 27-404 | 48026 | 25   | 27-411 | 48810 | 1000 |
| 27-405 | 48050 | 50   | 27-412 | 48815 | 1500 |
| 27-406 | 48100 | 100  | 27-413 | 48850 | 5000 |

| NET EACH  |       |      | \$1.18                 |       |      |
|-----------|-------|------|------------------------|-------|------|
| 50 WATT   |       |      | 75 WATT                |       |      |
| 27-430    | 48025 | 25   | 27-455                 | 47277 | 50   |
| 27-431    | 48060 | 60   | 27-456                 | 47278 | 150  |
| 27-432    | 48151 | 150  | 27-457                 | 47279 | 300  |
| 27-433    | 48501 | 500  | 27-458                 | 47280 | 500  |
| 27-434    | 48811 | 1000 | 27-459                 | 47281 | 1000 |
| 27-435    | 48851 | 2500 | Depths: 25 W. 1/4", 50 |       |      |
| 27-436    | 48851 | 5000 | 75 W. 3/4"             |       |      |
| NET EACH. |       |      | NET EACH.              |       |      |
| \$1.47    |       |      | \$1.76                 |       |      |

NET EACH \$1.18

### OHMITE VITREOUS ENAMELED RHEOSTATS



Underwriters' Approved wire-wound rheostats for radio and power control circuits. Metal contact shoe. Conservatively rated. Requires 3/4" hole, 3 terminals. With knob. Depth required behind panel for model H, 1 1/4"; for model K, 1 1/4". Shpg. wt. 1 lb.

| 25 Watt-Type H |      | 50 Watt-Type J |       |
|----------------|------|----------------|-------|
| No.            | Ohms | No.            | Ohms  |
| 74-320         | 1    | 74-350         | 0.5   |
| 74-321         | 2    | 74-351         | 1     |
| 74-322         | 6    | 74-352         | 2     |
| 74-323         | 10   | 74-353         | 4     |
| 74-324         | 15   | 74-354         | 8     |
| 74-325         | 25   | 74-355         | 12    |
| 74-326         | 50   | 74-356         | 22    |
| 74-327         | 100  | 74-357         | 35    |
| 74-328         | 175  | 74-358         | 80    |
| 74-329         | 250  | 74-359         | 150   |
| 74-330         | 500  | 74-360         | 250   |
| 74-331         | 750  | 74-361         | 500   |
| 74-332         | 1000 | 74-362         | 500   |
| 74-333         | 1500 | 74-363         | 1000  |
| 74-334         | 2500 | 74-364         | 2500  |
| 74-335         | 3500 | 74-365         | 5000  |
| 74-336         | 5000 | 74-366         | 10000 |

| 100 Watt-Type K |      | 250 Watt-Type L |      |
|-----------------|------|-----------------|------|
| No.             | Ohms | No.             | Ohms |
| 74-380          | 0.5  | 74-385          | 50   |
| 74-381          | 2    | 74-386          | 100  |
| 74-382          | 3    | 74-387          | 500  |
| 74-383          | 10   | 74-388          | 1000 |
| 74-384          | 25   |                 |      |

### MALLORY "E" POTENTIOMETERS RATED 9 WATTS



Heavy-duty, wire-wound potentiometers. Conservatively rated at 9 watts. Recommended for experimental work and test equipment. Can be mounted on panels up to 1/2" thick. 1/4" shaft extends 3/4" from bushing. Overall diameter is 2 1/2". Mounts in 3/4" hole. Contact arm graduated. Wt., 10 oz.

| Stock No. | Type    | Ohms    | Amps  | EACH   |
|-----------|---------|---------|-------|--------|
| 29-480    | E5MP    | 5000    | .042  |        |
| 29-481    | E10MP   | 10000   | .031  | \$1.47 |
| 29-482    | E25MP   | 25000   | .021  |        |
| 29-483    | E50MP   | 50000   | .015  |        |
| 29-484    | E100MP  | 100000  | .011  |        |
| 29-485    | E150MP  | 150000  | .0095 |        |
| 29-486    | E250MP  | 250000  | .0085 |        |
| 29-487    | E500MP  | 500000  | .0078 |        |
| 29-488    | E1000MP | 1000000 | .0078 |        |

NET EACH \$1.47

## MALLORY "C" RHEOSTATS



Wire-wound controls conservatively rated at 2-watts. Ideal for use in limited space. Contact arm is grounded to shaft. Diameter: 1 1/4", 1/4" shaft extends 3/4" from bushing. Three lug terminals. 8 oz.

| No.    | Type  | Ohms | Amps | EACH |
|--------|-------|------|------|------|
| 29-700 | C6R   | 6    | .58  |      |
| 29-701 | C10R  | 10   | .45  |      |
| 29-702 | C15R  | 15   | .37  |      |
| 29-703 | C20R  | 20   | .32  |      |
| 29-704 | C30R  | 30   | .26  |      |
| 29-705 | C40R  | 40   | .22  |      |
| 29-706 | C50R  | 50   | .2   |      |
| 29-707 | C100R | 100  | .14  |      |

## TYPE "C" POTENTIOMETERS

| No.    | Type  | Ohms | Amps | EACH |
|--------|-------|------|------|------|
| 29-720 | C6P   | 6    | .58  |      |
| 29-721 | C10P  | 10   | .45  |      |
| 29-722 | C15P  | 15   | .37  |      |
| 29-723 | C20P  | 20   | .32  |      |
| 29-724 | C30P  | 30   | .26  |      |
| 29-725 | C40P  | 40   | .22  |      |
| 29-726 | C50P  | 50   | .2   |      |
| 29-727 | C100P | 100  | .14  |      |
| 29-728 | C200P | 200  | .1   |      |
| 29-729 | C400P | 400  | .07  |      |

NET EACH \$1.47

## MALLORY "TRP" TAPPED CONTROLS

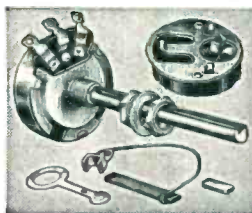


Universal 1 1/4" diameter tapped controls. Includes two contact wipers and ground terminal. No provision for switch if switch is desired use Type 624. 1/4" shaft extends 3/4" from bushing. 1/4" hole in panel. Auto sets. Special taper for auto sets. Others are Taper 1. Less switches. Av. shpg. wt., 5 oz.

| Stock No. | Mfr's. Type | Res. Ohms  | Tapped at Ohms |
|-----------|-------------|------------|----------------|
| 29-120    | TRP601      | 40M        | 8M             |
| 29-121    | TRP602      | 60M        | 4M             |
| 29-122    | TRP603      | 250M       | 110M           |
| 29-123    | TRP604      | 350M       | 20M            |
| 29-124    | TRP605      | 350M       | 70M            |
| 29-125    | TRP606      | 500M       | 100M           |
| 29-126    | TRP607      | 500M       | 225M           |
| 29-127    | TRP608      | 1 Meg.     | 200M           |
| 29-128    | TRP609      | 1 Meg.     | 500M           |
| 29-129    | TRP610      | 1 Meg.     | 30M            |
| 29-130    | TRP612      | 2 Meg.     | 15M            |
| 29-131    | TRP613      | 2 Meg.     | 400M           |
| 29-132    | TRP614      | 1 Meg.     | 70M            |
| 29-133    | TRP615      | 3 Meg.     | 900M           |
| 29-134    | TRP616      | 500M       | 60M            |
| 29-135    | TRP617      | 60M        | 12M            |
| 29-136    | TRP618      | 500M       | 250M           |
| 29-137    | TRP619      | 500M       | 100-200M       |
| 29-138    | TRP620      | 2 Meg.     | 900M           |
| 29-139    | *TRP621     | 2 1/2 Meg. | 250-500M       |
| 29-140    | TRP622      | 250M       | 70M            |
| 29-141    | TRP623      | 250M       | 50M            |
| 29-142    | TRP624      | 2 1/2 Meg. | 250-500M       |

# MALLORY Famous VOLUME CONTROLS

## UNIVERSAL VOLUME CONTROLS



Universal Volume Controls supplied with knob adapter, washer, nut, and ground terminal. With detachable end cover plates, and 3" channel shaft which can be easily cut to required size. Wire wound types are rated at 4 watts. All controls are listed LESS SWITCHES. 1 Slotted shaft for auto sets. 1 Wire wound 1W wire wound with adjustable bias. All others carbon. \*Have external bias resistors 1 1/2" dia. x 3/8". 5 ohm. **NOTE:** Shipped **less switch** unless ordered. See listing of switches below. **NET EACH..... 59c**

## STANDARD UNIVERSAL CONTROLS

| No.    | Ohms  | Type   | Taper | No.    | Ohms   | Type    | Taper |
|--------|-------|--------|-------|--------|--------|---------|-------|
| 29-000 | 2     | 10     | IV    | 29-035 | 15000  | *H12    | I     |
| 29-001 | 1     | 1R     | IV    | 29-036 | 15000  | H12     | II    |
| 29-002 | 10    | 1S     | IV    | 29-037 | 15000  | *H17    | VII   |
| 29-003 | 20    | 2T     | IV    | 29-038 | 20000  | A20MP   | IV    |
| 29-004 | 30    | 3U     | IV    | 29-039 | 20000  | IV      | IV    |
| 29-005 | 50    | 5V     | IV    | 29-040 | 25000  | *Y25MP  | IV    |
| 29-006 | 100   | 1W     | IV    | 29-041 | 25000  | IV      | IV    |
| 29-007 | 200   | 2X     | IV    | 29-042 | 50000  | Y50MP   | IV    |
| 29-008 | 400   | A400P  | IV    | 29-043 | 50000  | K12     | II    |
| 29-009 | 500   | 5A     | IV    | 29-044 | 50000  | W       | II    |
| 29-010 | 550   | A550P  | IV    | 29-045 | 75000  | Z12     | I     |
| 29-011 | 1000  | A10MP  | IV    | 29-046 | 75000  | *Z      | II    |
| 29-012 | 1000  | 1B     | IV    | 29-047 | 100000 | Y100MP  | IV    |
| 29-013 | 1000  | 1UC500 | IV    | 29-048 | 100000 | UC510   | IV    |
| 29-014 | 2000  | A2MP   | IV    | 29-049 | 100000 | UC510   | IV    |
| 29-015 | 2000  | 4C12   | I     | 29-050 | 150000 | UC502   | IV    |
| 29-016 | 2000  | 4C     | II    | 29-051 | 200000 | Y250MP  | IV    |
| 29-017 | 3000  | A3MP   | IV    | 29-052 | 250000 | Y250MP  | IV    |
| 29-018 | 3000  | D12    | I     | 29-053 | 250000 | M       | I     |
| 29-019 | 3000  | 1D     | II    | 29-054 | 250000 | UC511   | II    |
| 29-020 | 3000  | 1D7    | VII   | 29-055 | 250000 | UC508   | IV    |
| 29-021 | 5000  | 5ASMP  | IV    | 29-056 | 500000 | Y50MP   | IV    |
| 29-022 | 5000  | Y5MP   | IV    | 29-057 | 500000 | N       | I     |
| 29-023 | 5000  | *E12   | I     | 29-058 | 500000 | UC512   | II    |
| 29-024 | 5000  | 1E     | II    | 29-059 | 500000 | UC513   | II    |
| 29-025 | 5000  | 1E     | III   | 29-060 | 750000 | Y75MP   | IV    |
| 29-026 | 7500  | *F12   | I     | 29-061 | 1 Meg. | Y1000MP | IV    |
| 29-027 | 7500  | 1F     | II    | 29-062 | 1 Meg. | O       | IV    |
| 29-028 | 7500  | 1F7    | VII   | 29-063 | 1 Meg. | UC514   | I     |
| 29-029 | 10000 | 10MP   | IV    | 29-064 | 2 Meg. | Y2MP    | IV    |
| 29-030 | 10000 | Y10MP  | IV    | 29-065 | 3 Meg. | UC504   | I     |
| 29-031 | 10000 | *G12   | I     | 29-066 | 4 Meg. | UC505   | I     |
| 29-032 | 10000 | 1G     | II    | 29-067 | 5 Meg. | UC506   | II    |
| 29-033 | 10000 | 1G     | III   | 29-068 | 5 Meg. | UC507   | II    |
| 29-034 | 10000 | 1G7    | VII   | 29-069 | 9 Meg. | UC508   | I     |

## ATTACHABLE SWITCHES

| Stock No. | Kind  | Type | NET |
|-----------|-------|------|-----|
| 29-100    | SPST  | 6-9  | 29c |
| 29-101    | DPST  | 7    | 35c |
| 29-102    | SPDT  | 8    | 35c |
| 29-103    | *3PST | 13   | 35c |
| 29-104    | *4PST | 14   | 35c |

\*Shorting Type

## EXPLANATION OF TAPERS

**TAPER I:** Audio or ant. shunt.  
**TAPER II:** Audio or cathode circuit.  
**TAPER III:** Standard linear.  
**TAPER IVA:** Modified linear.  
**TAPER V:** Ant. and cathode bias.  
For volume control replacements in superhets use taper No. 1.

## TYPE M POTENTIOMETERS



Type M Wirewound Potentiometers are especially engineered for all Industrial, Commercial, Laboratory, University, and Research applications where high wattage control is required for an extremely limited space. Conservatively rated at 4 watts. Contact-arm is insulated. Has 294° total rotation; 28° effective electrical rotation. Case 1 1/2" diameter. 3/8" deep. Shaft 1/2" dia., extends 1/4" from bushing. Mounts in 3/4" hole. 8 oz.

| Ohms | Type  | Stock No. | EACH | Ohms | Type  | Stock No. | EACH   |
|------|-------|-----------|------|------|-------|-----------|--------|
| 15   | M15P  | 29-400    |      | 600  | M600P | 29-412    | 59c    |
| 20   | M20P  | 29-401    |      | 1M   | M1MP  | 29-413    |        |
| 25   | M25P  | 29-402    |      | 2M   | M2MP  | 29-414    |        |
| 30   | M30P  | 29-403    |      | 3M   | M3MP  | 29-415    |        |
| 40   | M40P  | 29-404    |      | 4M   | M4MP  | 29-416    |        |
| 50   | M50P  | 29-405    |      | 5M   | M5MP  | 29-417    |        |
| 60   | M60P  | 29-406    |      | 10M  | M10MP | 29-418    |        |
| 75   | M75P  | 29-407    |      | 15M  | M15MP | 29-419    |        |
| 100  | M100P | 29-408    |      | 20M  | M20MP | 29-420    | 88c    |
| 200  | M200P | 29-409    |      | 25M  | M25MP | 29-421    |        |
| 400  | M400P | 29-410    |      | 50M  | M50MP | 29-422    |        |
| 500  | M500P | 29-411    |      | 70M  | M70MP | 29-423    | \$1.18 |

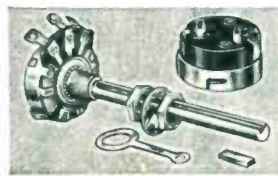
## TYPE M RHEOSTATS

| Stock No. | Ohms | Type | Amps. | Stock No. | Ohms | Type  | Amps. |
|-----------|------|------|-------|-----------|------|-------|-------|
| 29-451    | 2    | M05R | 2.80  | 29-459    | 20   | M20R  | .45   |
| 29-452    | 1    | M1R  | 2.00  | 29-460    | 25   | M25R  | .40   |
| 29-453    | 1/2  | M2R  | 1.4   | 29-461    | 30   | M30R  | .37   |
| 29-454    | 1/3  | M3R  | 1.0   | 29-462    | 35   | M35R  | .32   |
| 29-455    | 4    | M4R  | 1.00  | 29-463    | 50   | M50R  | .28   |
| 29-456    | 6    | M6R  | .82   | 29-464    | 60   | M60R  | .26   |
| 29-457    | 10   | M10R | .63   | 29-465    | 75   | M75R  | .23   |
| 29-458    | 15   | M15R | .52   | 29-466    | 100  | M100R | .20   |

NET EACH..... **44c**

## NEW MIDGET TYPE CONTROLS

Midget replacement volume controls for use where special shafts and couplings are unnecessary. Channel shaft and insert fits all type knobs. Compact and rugged. Midget switches, listed below, easily attached. 1/2" deep, 1 1/4" dia. 3" shaft. Shpg. wt., 5 oz.



**29-154. Specify Type Number and Value When Ordering. NET EACH..... 59c**

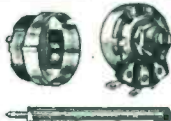
| Type  | Ohms  | Taper | Type  | Ohms   | Taper | Type  | Ohms   | Taper |
|-------|-------|-------|-------|--------|-------|-------|--------|-------|
| M R14 | 5000  | IV-A  | M R33 | 50000  | II    | M R44 | 250000 | I     |
| M R18 | 10000 | II    | M R34 | 50000  | IV    | M R45 | 500000 | IV    |
| M R19 | 10000 | II    | M R35 | 50000  | IV    | M R46 | 500000 | IV    |
| M R20 | 10000 | IV    | M R36 | 75000  | II    | M R47 | 750000 | I     |
| M R21 | 15000 | I     | M R37 | 75000  | II    | M R48 | 750000 | I     |
| M R22 | 15000 | II    | M R38 | 100000 | I     | M R49 | 1 Meg. | I     |
| M R23 | 20000 | II    | M R39 | 100000 | IV    | M R50 | 2 Meg. | I     |
| M R24 | 25000 | II    | M R40 | 100000 | IV    | M R51 | 3 Meg. | I     |
| M R25 | 25000 | IV    | M R41 | 100000 | IV    | M R52 | 3 Meg. | I     |
| M R26 | 25000 | IV    | M R42 | 150000 | I     | M R53 | 3 Meg. | I     |

## MIDGET SWITCHES FOR "IMR" CONTROLS

|                                             |              |
|---------------------------------------------|--------------|
| 29-200. Type M26. Single Pole Single Throw. | NET..... 29c |
| 29-201. Type M27. Double Pole Single Throw. | NET..... 35c |
| 29-202. Type M28. Single Pole Double Throw. | NET..... 35c |
| 29-203. Type M23/M24. 4PST. NET.            | 35c          |

## UM UNIVERSAL MIDGETS

Midget controls, size 1 1/4" dia., 1/2" W., less Plug-in Shaft below, offer a great advance in volume control offering. See above for attachable midget switches. Shpg. wt., 6 oz. **NOTE:** We can supply controls and shafts for most sets. Specify make, model number and tube lineup of radio and send deposit with order for fastest service.



| Type  | Ohms | Type  | Ohms | Type  | Ohms | Type  | Ohms   |
|-------|------|-------|------|-------|------|-------|--------|
| UM114 | 5M   | UM133 | 50M  | UM144 | 150M | UM158 | 750M   |
| UM118 | 10M  | UM134 | 50M  | UM147 | 250M | UM160 | 1 Meg. |
| UM119 | 10M  | UM135 | 50M  | UM148 | 250M | UM161 | 1 Meg. |
| UM120 | 10M  | UM136 | 50M  | UM149 | 250M | UM162 | 1 Meg. |
| UM121 | 15M  | UM138 | 75M  | UM151 | 350M | UM163 | 2 Meg. |
| UM122 | 15M  | UM140 | 100M | UM154 | 500M | UM166 | 3 Meg. |
| UM124 | 20M  | UM141 | 100M | UM156 | 500M | UM180 | 100M   |
| UM125 | 25M  | UM142 | 100M | UM167 | 500M | UM181 | 2 Meg. |
| UM129 | 25M  | UM143 | 100M |       |      |       |        |

\*Clutch type—not for attachable switch. †Right-hand switch action.

**29-500. Less shaft. Specify values and type numbers when ordering. See above for listing of midget switches. NET..... 59c**

## TYPE TM TAPPED MIDGETS

Similar to UM type directly above, but have one control tap. Be sure to specify SS type Plug-in Shaft when ordering. Shipping weight, 6 oz.

| Type   | Ohms | Type | Ohms   | Type       | Ohms  | Type  | Ohms        |
|--------|------|------|--------|------------|-------|-------|-------------|
| TM220  | 250M | 50M  | TM232  | 500M       | 225M  | TM246 | 2 Meg. 5M   |
| TM221  | 250M | 100M | TM233  | 500M       | 60M   | TM247 | 2 Meg. 15M  |
| TM222  | 250M | 100M | TM234  | 1 Meg.     | 65M   | TM247 | 2 Meg. 20M  |
| TM223  | 350M | 70M  | TM236  | 1 Meg.     | 1.25M | TM248 | 2 Meg. 250M |
| TM224* | 500M | 100M | TM238  | 1 Meg.     | 300M  | TM249 | 2 Meg. 600M |
| TM226  | 350M | 70M  | TM239* | 1 Meg.     | 300M  | TM260 | 2 Meg. 125M |
| TM226  | 500M | 15M  | TM240  | 1 Meg.     | 200M  | TM261 | 2 Meg. 900M |
| TM228  | 500M | 100M | TM241  | 1 Meg.     | 200M  | TM262 | 2 Meg. 900M |
| TM228  | 500M | 5M   | TM242* | 1 Meg.     | 450M  | TM264 | 2 Meg. 400M |
| TM230  | 500M | 150M | TM243  | 1 Meg.     | 450M  | TM267 | 3 Meg. 900M |
| TM231  | 500M | 225M | TM244  | 1 1/2 Meg. | 200M  | TM259 | 2 Meg. 900M |

\*Clutch type. No provision for switch.

**29-550. Less shaft. Specify values and type numbers when ordering. See above for midget switches. NET..... 73c**

## TYPE "SS" PLUG-IN SHAFTS

For use with UM or TM controls above. Designed as exact replacements for applications requiring predetermined length with special coupling slots, contours or insulated coupler. Write for free catalog 37-00 which describes these shafts. **Specify type wanted, when ordering.**

|                                                                                  |
|----------------------------------------------------------------------------------|
| 29-600. Type 1, 2, 4, 5, 6, 10, 12, 16, 23, 24, 25, 26, 27. EACH..... <b>15c</b> |
| 29-625. Type 3, 11, 14, 15, 21. EACH..... <b>21c</b>                             |
| 29-640. Type 17, 19, 20. EACH..... <b>29c</b>                                    |

## Mallory Radio Service Encyclopedia—4th Edition

Your replacement part worries are over when you use the Mallory Encyclopedia. Over 400 pages of receiver listings, covering thousands of models. Given tube complements and service notes, also volume control, vibrator and condenser requirements. Includes all original factory part numbers and all Rider manual references. Wt., 2 lbs. **95c**





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# THORDARSON High Quality TRANSFORMERS



FIG. 2-F



FIG. 2-E



FIG. 3-B



FIG. 2-C



FIG. 3-E



FIG. 3-Y



FIG. 2-D

## COUPLING TRANSFORMERS

Finest quality Thordarson transformers for almost every input, mixer, or line-coupling circuit. Complete information is given in the tabulation below. Consult any tube chart for the impedance of the tube or tubes to be used, then select the proper matching transformer. Av. wt., 4 lbs.

### TUBE TO LINE OR MIXER (LOW LEVEL)

| Stock No. | Type   | NET    | Fig. | Primary   | Secondary  |
|-----------|--------|--------|------|-----------|------------|
| 63-000    | T1A490 | \$1.76 | 2-F  | 20,000 CT | 500 or 125 |
| 63-001    | T1A491 | 1.76   | 2-F  | 20,000 CT | 200 or 50  |

### MIKE, MIXER, OR LINE TO GRID

|        |        |        |     |            |            |
|--------|--------|--------|-----|------------|------------|
| 63-010 | T58A37 | \$1.59 | 2-F | 200 or 50  | 100,000    |
| 63-011 | T59A36 | 1.94   | 2-F | 200 or 50  | 100,000 CT |
| 63-012 | T61A94 | 2.29   | 2-F | 500 or 125 | 100,000 CT |
| 63-013 | T81A78 | 1.59   | 2-F | 100        | 400,000 CT |
| 63-014 | T1A494 | 1.76   | 3-B | 4 or 8     | 100,000    |

### OUTPUT COUPLING TRANSFORMERS

|        |        |        |     |                |                |
|--------|--------|--------|-----|----------------|----------------|
| 63-025 | T61S25 | \$2.29 | 2-E | Univ. Single   | 500            |
| 63-026 | T61S26 | 2.41   | 2-E | Univ. PP       | 500            |
| 63-027 | T57S01 | 1.41   | 2-E | Univ.-Sing.-PP | Adj. 1 to 29   |
| 63-028 | T57S02 | 1.41   | 3-B | Univ.-Sing.-PP | Adj. 1 to 29   |
| 63-029 | T67S54 | 2.29   | 2-F | 8,000          | 4-8-15-500     |
| 63-030 | T67S55 | 2.29   | 2-F | 5,800          | 4-8-15-500     |
| 63-031 | T67S56 | 2.29   | 2-F | 14,800         | 4-8-15-500     |
| 63-032 | T67S57 | 2.29   | 2-F | 8,000          | 4-8-15-500     |
| 63-033 | T67S58 | 2.29   | 2-F | 10,000         | 4-8-15-500     |
| 63-034 | T67S59 | 2.29   | 2-F | 10,000 CT      | 2-4-8          |
| 63-035 | T75S75 | 2.29   | 2-F | 3,800          | 4-8-15-500     |
| 63-036 | T81S01 | 1.06   | 3-B | 6,000          | 4-8-15-500     |
| 63-037 | T84S58 | 2.29   | 2-G | 4,000          | 4-8-15-500     |
| 63-038 | T84S59 | 2.29   | 2-G | 2,500          | 2-4-8-500      |
| 63-039 | T89S74 | 2.65   | 2-F | 8,000          | 4-8-15-250-500 |
| 63-040 | T17S10 | 2.12   | 2-F | 2,500          | 2-4-8-500      |
| 63-041 | T17S11 | 2.12   | 2-F | 8,000          | 4-8-15-250-500 |
| 63-042 | T17S12 | 2.12   | 2-F | 10,000*        | 4-8-15-250-500 |
| 63-043 | T14S83 | 0.88   | 3-B | 25,000 CT      | 3 to 6         |
| 63-044 | T14S84 | 0.88   | 3-B | 8,000          | 3 to 6         |
| 63-045 | T14S85 | 0.88   | 3-B | 1,000          | 10 to 6        |
| 63-050 | T14S81 | 0.88   | 3-B | 7,000 CT       | 3 to 6         |

\*Has third winding for obtaining 10% inverse feed-back.

### LINE TO SPEAKER VOICE COIL

Correctly matches line to speaker voice coil. Shpg. wt., 4 1/2 lbs.

|        |        |        |     |             |                      |
|--------|--------|--------|-----|-------------|----------------------|
| 63-060 | T60S48 | \$2.12 | 2-E | 500 to 3000 | Univ. V. C.          |
| 63-061 | T14S80 | 1.41   | 2-E | 500         | 2-4-8-6              |
| 63-062 | T76S74 | 2.65   | 3-E | 500         | 84 to 250            |
| 63-063 | T55S81 | 3.35   | 2-D | 500 or 250  | 4 or 15              |
| 63-064 | T17S17 | 2.59   | 3-C | 500         | 4-8-16-25-50         |
| 63-065 | T17S18 | 2.65   | 2-D | 500 to 3000 | .06 to 8 or 12 to 16 |

### CLASS "B" and "AB" DRIVERS

|        |        |        |     |                |                                     |
|--------|--------|--------|-----|----------------|-------------------------------------|
| 63-076 | T67D47 | \$1.76 | 2-F | 1-6N7, 6A6, 53 | 1-6N7 or 53                         |
| 63-077 | T67D78 | 2.12   | 2-F | 1-4E, 59, 6F6  | 2-4E, 59 or 6F6                     |
| 63-078 | T81D42 | 2.29   | 2-F | 1-6F6, 42, 2A5 | 2-6F6 Triode, 2-42 or 2-2A5 Pentode |
| 63-079 | T84D59 | 2.29   | 2-F | 2-6C5, 6N7     | 2-6L6 or 6V6                        |
| 63-080 | T73D03 | 3.18   | 2-F | 2-6A6, 53*     | 6N7, 6A6 or 53                      |
| 63-084 | T78D46 | 1.06   | 2-B | 1-6F6 "AB2"    | 1-1J60, 1-19, 2-30                  |

\*Has split secondary for inverse feed-back.

### TRANSCEIVER AUDIOS

Average shipping weight of transceiver audios, 1 lb.

|        |        |        |     |           |              |
|--------|--------|--------|-----|-----------|--------------|
| 63-100 | T54D03 | \$1.59 | 2-F | 20,000    | 1-19 or 2-49 |
| 63-036 | T81S01 | 1.06   | 2-B | 10,000 CT | 2-4-8        |
| 63-102 | T68S06 | 1.76   | 2-F | 7,000     | 10 or 2,000  |
| 63-103 | T72S58 | 1.18   | 2-B | 5,000-200 | 100,000      |
| 63-104 | T72A59 | 1.18   | 2-B | 5,000-200 | 100,000      |

### FILTER CHOKES

Inductances are given as ratings under actual working conditions.

| Stock No. | Type   | NET    | Fig. | Ma. | Ohms | Size Inches   | Lbs.          |
|-----------|--------|--------|------|-----|------|---------------|---------------|
| 63-115    | T18C92 | \$1.06 | 3-B  | 22  | 35   | 3 1/2 x 2 1/2 | 2             |
| 63-116    | T47C07 | 1.18   | 3-B  | 12  | 75   | 4 1/2 x 2 1/2 | 2             |
| 63-117    | T68C07 | 1.41   | 3-B  | 15  | 85   | 3 1/2 x 2 1/2 | 3             |
| 63-118    | T67C63 | 1.41   | 3-B  | 10  | 110  | 200           | 3 1/2 x 2 1/2 |
| 63-119    | T67C64 | 1.59   | 2-F  | 10  | 110  | 200           | 3 1/2 x 2 1/2 |
| 63-120    | T17C00 | 1.94   | 2-F  | 12  | 150  | 231           | 3 1/2 x 3     |
| 63-121    | T13C26 | 1.06   | 3-B  | 8   | 40   | 530           | 2 1/2 x 1 1/2 |
| 63-122    | T13C27 | 1.06   | 3-B  | 10  | 40   | 475           | 2 1/2 x 1 1/2 |
| 63-123    | T13C28 | 1.06   | 3-B  | 10  | 65   | 460           | 3 1/2 x 2 1/2 |
| 63-124    | T13C29 | 1.06   | 3-B  | 12  | 120  | 375           | 3 1/2 x 2 1/2 |
| 63-125    | T13C30 | 1.06   | 3-B  | 12  | 80   | 405           | 2 1/2 x 1 1/2 |
| 63-126    | T13C31 | 1.06   | 3-B  | 8   | 150  | 200           | 3 1/2 x 2 1/2 |
| 63-127    | T67C49 | 1.94   | 2-F  | 5   | 200  | 80            | 3 1/2 x 3     |
| 63-128    | T61C07 | 1.59   | 2-F  | 15  | 85   | 375           | 3 1/2 x 2 1/2 |
| 63-129    | T44C01 | 1.06   | 3-B  | 12  | 80   | 405           | 2 1/2 x 1 1/2 |
| 63-132    | T75C61 | 3.53   | 2-G  | 13  | 250  | 121           | 3 1/2 x 3 1/2 |

**PRIORITIES.** Many Thordarson transformers are available only on priority. To help speed shipment, please include your priority with your order. ALLIED will continue to supply transformers necessary for repair of existing equipment without priority ratings, depending on available stocks and government regulations.

### PLATE COUPLING CHOKES

| Stock No. | Type   | NET    | Fig. | Ma. | Hys. | Size Inches           | Lbs. |
|-----------|--------|--------|------|-----|------|-----------------------|------|
| 63-146    | T62C98 | \$1.41 | 2-F  | 5*  | 700  | 2 1/2 x 1 1/2 x 2 1/2 | 2    |
| 63-145    | T29C27 | 1.23   | 3-B  | 5   | 500  | 2 1/2 x 1 1/2 x 2 1/2 | 1    |
| 63-147    | T37C36 | 1.41   | 2-F  | 5   | 300  | 2 1/2 x 1 1/2 x 2 1/2 | 2    |
| 63-148    | T67C46 | 1.23   | 3-B  | 5   | 300  | 2 1/2 x 1 1/2 x 2 1/2 | 2    |
| 63-150    | T14C70 | 1.76   | 3-B  | 0†  | 22   | 1 1/2 x 1 1/2 x 2 1/2 | 1/4  |
| 63-151    | T74C30 | 1.06   | 3-B  | 5   | 42   | 3 1/2 x 1 1/2 x 2 1/2 | 2    |
| 63-152    | T93C20 | 1.94   | 3-B  | 5   | 250  | 2 1/2 x 1 1/2 x 2 1/2 | 2    |

\*For use as plate inductance with S. G. tubes. Max. Cap. 8 ma.  
†Used in Thordarson tone control circuit with Thordarson R1008 dual tone control 63-165. NET \$1.76

### UNIVERSAL OUTPUT TRANSFORMERS

PRIMARY: SINGLE OR PP. SECONDARY: 1 TO 29 OHMS

| Stock No. | Type   | NET    | Fig. | Primary  | Size Inches           | Lbs. |
|-----------|--------|--------|------|----------|-----------------------|------|
| 63-027    | T67S01 | \$1.41 | 2-E  | 8 Watts  | 2 1/2 x 2 1/2 x 2 1/2 | 2    |
| 63-028    | T67S02 | 1.41   | 3-B  | 8 Watts  | 2 1/2 x 2 1/2 x 2 1/2 | 1    |
| 63-172    | T14S86 | 1.06   | 3-B  | 8 Watts  | 2 1/2 x 1 1/2 x 1 1/2 | 1    |
| 63-173    | T13S42 | 1.06   | 3-B  | 10 Watts | 2 1/2 x 1 1/2 x 1 1/2 | 1    |
| 63-174    | T13S41 | 1.94   | 2-E  | 20 Watts | 3 1/2 x 2 1/2 x 3     | 3    |

PRIMARY: CENTER-TAPPED. SEC.: 6 TO 12 OHMS

|        |        |        |     |                 |                       |   |
|--------|--------|--------|-----|-----------------|-----------------------|---|
| 63-175 | T33S99 | \$1.06 | 2-B | 8,000 ohms C.T. | 2 1/2 x 2 1/2 x 2 1/2 | 2 |
|--------|--------|--------|-----|-----------------|-----------------------|---|

PRIMARY: SINGLE TUBE. SEC.: 1, 2, AND 4 OHMS

|        |        |        |     |             |                       |   |
|--------|--------|--------|-----|-------------|-----------------------|---|
| 63-176 | T13S37 | \$0.88 | 3-E | 7,000 ohms  | 2 1/2 x 2 1/2 x 1 1/2 | 1 |
| 63-177 | T13S39 | .88    | 3-E | 4,000 ohms  | 2 1/2 x 2 1/2 x 1 1/2 | 1 |
| 63-178 | T13S43 | .94    | 3-E | 16,000 ohms | 2 1/2 x 2 1/2 x 1 1/2 | 1 |

### STRAIGHT AUDIO TRANSFORMERS

| Stock No. | Mfr.'s Type | NET    | Fig. | Ratio | Size Inches           | Shpg. Wt. |
|-----------|-------------|--------|------|-------|-----------------------|-----------|
| 63-365    | T47A25      | \$1.59 | 2-C  | 3:1   | 2 1/2 x 2 1/2 x 2 1/2 | 2         |
| 63-366    | T29A99      | 1.41   | 3-B  | 3:1   | 2 1/2 x 2 1/2 x 1 1/2 | 1         |
| 63-367    | T57A36      | 1.59   | 2-F  | 3:1   | 2 1/2 x 2 1/2 x 2 1/2 | 2         |
| 63-368    | T57A38      | 2.12   | 2-F  | 3:1   | 3 1/2 x 2 1/2 x 3     | 3         |
| 63-369    | T57A74      | 1.94   | 2-F  | 2:1   | 2 1/2 x 2 1/2 x 2 1/2 | 2         |
| 63-370    | T17A02†     | 1.76   | 2-F  | 3:1   | 2 1/2 x 2 1/2 x 2 1/2 | 2         |
| 63-371    | T13A14      | .94    | 3-B  | 3:1   | 2 1/2 x 1 1/2 x 1 1/2 | 1         |

\*Has static shield between primary and sec. †For straight or P.P. use.

### PUSH-PULL INPUT AND INTERSTAGE TRANSFORMERS

Frequency response flat within 1 1/2 db. from 60 to 8000 CPS.

| Stock No. | Mfr.'s Type | NET    | Fig. | Ratio | Size Inches           | Shpg. Wt. |
|-----------|-------------|--------|------|-------|-----------------------|-----------|
| 63-385    | T14A29      | \$1.76 | 2-C  | 3:1   | 2 x 1 1/2 x 2 1/2     | 2         |
| 63-386    | T13A91      | 1.41   | 3-B  | 3:1   | 2 1/2 x 2 1/2 x 2 1/2 | 2         |
| 63-387    | T57A39      | 1.76   | 2-F  | 3:1   | 2 1/2 x 2 1/2 x 2 1/2 | 2         |
| 63-388    | T57A40      | 2.29   | 2-F  | 3:1   | 3 1/2 x 2 1/2 x 3     | 3         |
| 63-389    | T57A41      | 2.47   | 2-F  | 3:1   | 3 1/2 x 2 1/2 x 3     | 3         |
| 63-390    | T57A42      | 2.47   | 2-F  | 3:1   | 3 1/2 x 2 1/2 x 3     | 3         |
| 63-391    | T58A40†     | 2.65   | 2-F  | 1.5:1 | 3 1/2 x 2 1/2 x 3     | 3         |
| 63-392    | T13A36†     | 1.41   | 3-B  | 3:1   | 2 1/2 x 2 1/2 x 2 1/2 | 2         |
| 63-393    | T14A92      | 1.94   | 3-B  | 3:1   | 2 1/2 x 1 1/2 x 1 1/2 | 1         |
| 63-394    | T13A35†     | 1.06   | 3-B  | 3:1   | 2 1/2 x 1 1/2 x 1 1/2 | 1         |
| 63-395    | T74A31      | 2.47   | 2-F  | 1:1   | 3 1/2 x 2 1/2 x 3     | 3         |

\*Primary rated at 10 ma. Others rated 8 ma. †P.P. Interstage.

### THORDARSON PUBLICATIONS

The listings above represent a condensed showing of the most popular types of Thordarson transformers and chokes for radio or amplifier replacement, and all transmitter, commercial laboratory, and experimental use. Many are available in several choices of mounting styles, coil impregnations, and electrical characteristics. For full specifications send for one or more of the complete informative Thordarson transformer catalogs or manuals which are listed below.



- 63-016. Replacement Transformer Encyclopedia. Indicates correct replacement transformers and chokes for receivers listed in Rider's Manuals. . . . . **FREE**
- 63-017. Tru-Fidelity Broadcast Transformer Catalog. A manual for the Sound Man and the Broadcast Engineer. . . . . **FREE**
- 63-701. Sound Amplifier Guide. Contains circuits of laboratory tested amplifiers from 8 to 120 watts output. NET . . . . . 9c
- 63-702. Transmitter Guide. NET . . . . . 9c



# THORDARSON High Quality TRANSFORMERS

## UNIVERSAL DUPLICATE POWER TRANSFORMERS



A complete line of power transformers designed to meet the requirements of every serviceman, maintenance man, radio instructor, and engineer. Typical Thorndarson quality, built into each unit, insures dependable service and long life. A variety of mountings are used, to meet every service requirement. Mounting brackets are adjustable to permit flush, vertical, or horizontal mounting. All power transformers listed below are for 110 volt 50-60 cycle operation. All plate windings are center-tapped. All have 5V., 4A. filament windings except \* have 5V., 4A. See page 30 for priority data.

| Stock No. | Mfr's. Type | NET    | Plate Volts | Plate Mils. | Fil. 1 V | Fil. 1 A | Fil. 2 V | Fil. 2 A | Mtg. Centers  | Wt. Lbs. |
|-----------|-------------|--------|-------------|-------------|----------|----------|----------|----------|---------------|----------|
| 63-300    | T13R01      | \$2.47 | 650         | 40          | 2.5      | 4        | 2.5      | 4        | 2 1/2 x 2 1/2 | 4        |
| 63-301    | T13R02      | 2.65   | 700         | 50          | 2.5      | 5        | 2.5      | 5        | 2 1/2 x 2 1/2 | 4        |
| 63-302    | T13R03      | 3.00   | 700         | 70          | 3        | 7.25     | 2.5      | 5        | 2 1/2 x 2 1/2 | 4        |
| 63-303    | T13R04      | 3.53   | 700         | 100         | 2.5      | 12.5     | 2.5      | 5        | 3 1/2 x 2 1/2 | 6        |
| 63-304    | T13R05      | 3.53   | 700         | 100         | 2.5      | 9        | 2.5      | 3.5      | 3 1/2 x 2 1/2 | 6        |
| 63-305    | T13R06      | 4.96   | 700         | 120         | 2.5      | 12.5     | 2.5      | 3.5      | 3 1/2 x 3     | 7        |
| 63-306    | T13R07      | 4.23   | 800         | 110         | 2.5      | 9        | 2.5      | 3.5      | 3 1/2 x 3     | 7        |
| 63-307    | T13R08      | 1.53   | 700         | 90          | 6.3      | 3        | 2.5      | 6        | 3 1/2 x 2 1/2 | 6        |
| 63-308    | T13R09      | 4.41   | 750         | 180         | 6.3      | 3        | 2.5      | 6        | 3 1/2 x 3     | 8        |
| 63-309    | T13R10      | 3.18   | 550         | 70          | 5        | 2.5      | 10.5     | 2.5      | 2 1/2 x 2 1/2 | 4        |
| 63-310    | T13R11      | 1.96   | 500         | 50          | 3        | 2.5      | 5        | 3        | 2 1/2 x 2 1/2 | 4        |
| 63-311    | T13R12      | 2.65   | 700         | 100         | 6.3      | 2.5      | 2.5      | 3        | 2 1/2 x 2 1/2 | 4        |
| 63-312    | T13R13      | 3.18   | 700         | 90          | 6.3      | 3        | 2.5      | 3        | 2 1/2 x 2 1/2 | 4        |
| 63-313    | T13R14      | 3.53   | 650         | 120         | 6.3      | 3        | 2.5      | 3        | 2 1/2 x 2 1/2 | 4        |
| 63-314    | T13R15      | 4.06   | 750         | 150         | 6.3      | 3        | 2.5      | 3        | 2 1/2 x 3     | 7        |
| 63-315    | T13R16      | 4.59   | 800         | 200         | 6.3      | 3        | 5.14     | 2.5      | 2 1/2 x 3     | 8        |
| 63-316    | T13R17      | 3.00   | 600         | 60          | 6.3      | 2.5      | 2.5      | 7.5      | 2 1/2 x 2 1/2 | 5        |
| 63-318    | T13R19      | 2.12   | 480         | 40          | 6.3      | 2        | 2.5      | 3        | 2 1/2 x 2 1/2 | 3        |

## GENERAL PURPOSE POWER TRANSFORMERS

2G

2H



With 110 volt, 50-60 cycle primaries and center-tapped plate windings. All have 3 volt, 2 amp. filament windings except \* has 5 volt, 3 amp. and \* has both 5 volt, 3 amp. and 2.5 volt, 3 amp. windings. Mounted as Fig. 2-Except \* as Fig. 2-H style. With chart showing terminal connections.

| Stock No. | Mfr's. Type | NET    | Plate Volts | Plate Mils. | Fil. 1 V | Fil. 1 A | Fil. 2 V | Fil. 2 A | Mtg. Centers  | Wt. Lbs. |
|-----------|-------------|--------|-------------|-------------|----------|----------|----------|----------|---------------|----------|
| 63-333    | T60R491     | \$2.12 | 560         | 30          | 2.5      | 3.5      | 2.5      | 3.5      | 2 1/2 x 2 1/2 | 2        |
| 63-336    | T70R201     | 2.23   | 600         | 30          | 2.5      | 3        | 2.5      | 3        | 2 1/2 x 2 1/2 | 2        |
| 63-337    | T70R202     | 3.35   | 680         | 125         | 3        | 2        | 2.5      | 3        | 2 1/2 x 2 1/2 | 6        |
| 63-338    | T70R78      | 3.00   | 680         | 55          | 6.3      | 1.5      | 2.5      | 3        | 2 1/2 x 2 1/2 | 4        |
| 63-339    | T70R03      | 3.35   | 770         | 70          | 6.3      | 2.5      | 2.5      | 3        | 2 1/2 x 2 1/2 | 4        |
| 63-340    | T56R01      | 4.96   | 650         | 70          | 6.3      | 1.5      | 4        | 2.5      | 2 1/2 x 2 1/2 | 8        |
| 63-341    | T56R035     | 4.76   | 700         | 105         | 2.5      | 3        | 2.5      | 1.5      | 2 1/2 x 2 1/2 | 6        |
| 63-342    | T70R62      | 4.41   | 700         | 145         | 6.3      | 4.5      | 2.5      | 3        | 3 x 3         | 9        |
| 63-343    | T56R05      | 4.76   | 700         | 110         | 2.5      | 9        | 2.5      | 3        | 3 x 3         | 10       |
| 63-344    | T70R18      | 5.28   | 770         | 200         | 6.3      | 3        | 2.5      | 3        | 3 x 3         | 10       |
| 63-345    | T74R28*     | 4.76   | 880         | 125         | 6.3      | 3.3      | 2.5      | 3        | 3 x 3         | 10       |
| 63-346    | T74R28      | 6.00   | 740         | 280         | 6.3      | 7        | 2.5      | 3        | 3 x 3         | 10       |
| 63-347    | T74R18      | 5.82   | 860         | 325         | 6.3      | 3        | 2.5      | 3        | 3 x 3         | 10       |
| 63-348    | T70R21*     | 3.18   | 700         | 70          | 5        | 4        | 6.3      | 3        | 3 x 3         | 2        |
| 63-349    | T75R501     | 4.47   | 870         | 250         | 6.3      | 1.5      | 2.5      | 10       | 3 x 3         | 11       |
| 63-285    | T17R14      | 3.70   | 600         | 125         | 6.3      | 4.8      | 2.5      | 3        | 2 1/2 x 2 1/2 | 6        |
| 63-286    | T17R15      | 2.47   | 580         | 50          | 6.3      | 2        | 2.5      | 3        | 2 1/2 x 2 1/2 | 4        |
| 63-287    | T17R36      | 2.82   | 700         | 70          | 6.3      | 2.5      | 2.5      | 3        | 2 1/2 x 2 1/2 | 4        |
| 63-288    | T17R37      | 3.35   | 700         | 90          | 6.3      | 3        | 2.5      | 3        | 2 1/2 x 2 1/2 | 6        |

\* Has 38 volt bias tap. † Has 80 volt bias tap.

## C.H.T. TRANSFORMERS

For use in receivers, transmitters, etc., when highest quality is the prime factor. Meets varying climatic conditions. Absolutely dependable.

### LOW LEVEL AUDIO TRANSFORMERS

| No.    | Type   | NET    | Primary      | Sec.           | Wt. |
|--------|--------|--------|--------------|----------------|-----|
| 63-200 | T15A66 | \$5.64 | 50 to 500    | Sgl. 15M, 60M  | 3   |
| 63-201 | T15A67 | 8.64   | 50 to 500    | P.P. 30M, 120M | 3   |
| 63-203 | T15A69 | 5.64   | 50 to 500    | 50 to 500      | 3   |
| 63-204 | T15A70 | 5.64   | 2.5 to 600   | 50 to 500      | 3   |
| 63-205 | T15A71 | 5.64   | Sgl. 5M, 20M | 50 to 500      | 3   |
| 63-206 | T15A72 | 5.64   | P.P. 5M, 20M | 50 to 500      | 2   |

### DRIVER TRANSFORMERS

| No.    | Type   | NET    | Primary     | Sec.   | Wt. |
|--------|--------|--------|-------------|--------|-----|
| 63-215 | T15D85 | \$5.64 | Sgl. 6F6    | PP 6L6 | 3   |
| 63-216 | T15D86 | 6.35   | Multi-Match |        | 6   |

### OUTPUT TRANSFORMERS

| No.    | Type   | NET     | Primary | Sec.     | Wt. |
|--------|--------|---------|---------|----------|-----|
| 63-225 | T15S95 | \$12.35 | 3,300   | 2 to 500 | 16  |
| 63-222 | T15S90 | 7.06    | 8M, 5M  | 2 to 500 | 8   |

### POWER TRANSFORMERS

| Stock No. | Mfr's. Type | NET    | Plate Volts | Plate Mils. | Fil. 1 V | Fil. 1 A | Fil. 2 V | Fil. 2 A | Shpg. Wt. |
|-----------|-------------|--------|-------------|-------------|----------|----------|----------|----------|-----------|
| 63-218    | T15R05†     | \$9.35 | 680         | 135         | 6.3      | 4        | 6.3      | 2        | 10        |
| 63-219    | T15R06      | 8.64   | 720         | 175         | 6.3      | 5        | 6.3      | 2        | 11        |
| 63-220    | T15R07      | 9.35   | 760         | 280         | 6.3      | 7        | 6.3      | 2        | 12        |
| 63-221    | T15R08      | 11.29  | 800         | 325         | 6.3      | 8        | 6.3      | 2        | 12        |

All have 5v.-Ja. filament winding, † also has 5v.-2a. filament winding.

## GENERAL PURPOSE TRANSFORMERS AND CHOKES



An extremely popular line offering all necessary transformer units for dependable service in any type of industrial electronic equipment. Each transformer is supplied with mounting template. All primaries are for 115 volt, 50-60 cycles. Other voltages are available on special order. Improved voltage regulation and minimum heat rise have been given prime consideration in the design of all Thorndarson transformers. See Page 30 for priority requirements, or write Thorndarson Industrial Division.

### FILAMENT TRANSFORMERS

| Stock No. | Type    | NET    | Volts     | Amps. | Insul. | Fig. | Lbs.  |
|-----------|---------|--------|-----------|-------|--------|------|-------|
| 63-400    | T50F61  | \$1.23 | 2.5 CT    | 3.5   | 1600   | 2B   |       |
| 63-401    | T13F88  | 1.41   | 2.5 CT    | 5.25  | 1600   | 2B   | 1 1/4 |
| 63-402    | T13F89  | 1.59   | 2.5 CT    | 10    | 1600   | 2B   | 2     |
| 63-403    | T13F90  | 2.12   | 2.5 CT    | 10    | 7500   | 3C   | 2 1/4 |
| 63-404    | T13F82  | 3.53   | 2.5 CT    | 15    | 10000  | 3C   | 4     |
| 63-405    | T64F31* | 4.29   | 2.5 CT    | 10    | 7500   | 3C   | 2 1/4 |
| 63-406    | T13F83  | 4.59   | 2.5 CT    | 4     | 1600   | 2B   | 2 1/4 |
| 63-407    | T13F81  | 1.59   | 5 CT      | 5     | 1600   | 2B   | 2     |
| 63-408    | T13F84  | 1.94   | 5 CT      | 8     | 1600   | 3C   | 2 1/4 |
| 63-409    | T13F85  | 2.82   | 5 CT      | 13    | 1600   | 3C   | 4     |
| 63-410    | T13F86  | 3.18   | 5 CT      | 21    | 1600   | 3C   | 4 1/2 |
| 63-411    | T13F91  | 1.76   | 5.25 CT   | 4     | 1600   | 3C   | 2 1/4 |
| 63-412    | T13F92  | 2.47   | 5.25 CT   | 13    | 1600   | 3C   | 4     |
| 63-413    | T74F21* | 2.53   | 5 CT      | 13    | 1600   | 3C   | 4     |
| 63-414    | T74F22* | 3.00   | 5 CT      | 21    | 1600   | 3C   | 4 1/2 |
| 63-415    | T13F80  | .94    | 6.3 CT    | 1     | 1600   | 2B   | 1     |
| 63-416    | T13F81  | 1.06   | 6.3 CT    | 2     | 1600   | 2B   | 1     |
| 63-417    | T13F87  | 1.23   | 6.3 CT    | 2     | 1600   | 2B   | 1 1/2 |
| 63-418    | T61F85  | 1.5    | 6.3, 5.25 | 2.5   | 1600   | 2E   | 1 1/4 |
| 63-419    | T73F86  | 2.82   | 6.3 CT    | 5     | 1600   | 2B   | 3 1/4 |
| 63-420    | T13F98  | 1.94   | 6.3 CT    | 6     | 1600   | 3C   | 2 1/4 |
| 63-421    | T13F99  | 2.47   | 6.3 CT    | 10    | 1600   | 3C   | 2 1/4 |
| 63-422    | T13F93  | 2.47   | 6.3 CT    | 10    | 1600   | 3C   | 2 1/4 |
| 63-423    | T13F94  | 2.12   | 7.5 CT    | 8     | 1600   | 3C   | 4     |
| 63-424    | T13F95  | 1.92   | 10 CT     | 4     | 1600   | 3C   | 2 1/4 |
| 63-425    | T64F31* | 2.43   | 10 CT     | 8     | 1600   | 2D   | 5     |
| 63-426    | T64F31* | 3.53   | 10 CT     | 8     | 1600   | 2D   | 5     |
| 63-427    | T13F87  | 4.41   | 10 CT     | 12    | 1600   | 3C   | 6 1/2 |

\* Primaries tapped at 105, 110 and 115 volts.

### STANDARD MODULATION TRANSFORMERS

| Stock No. | Type   | NET    | Primary | Secondary        | Audio  | Lbs. |
|-----------|--------|--------|---------|------------------|--------|------|
| 63-452    | T75R65 | \$1.94 | 10000   | 2700             | 10 W.  | 2    |
| 63-451    | T17R69 | 4.23   | 10000   | 3000, 3750, 4500 | 10 W.  | 2    |
| 63-452    | T64M26 | 4.00   | 5800    | 5000, 10000      | 40 W.  | 5    |
| 63-453    | T18M21 | 4.94   | 10000   | 3750, 6600       | 75 W.  | 7    |
| 63-454    | T18M20 | 5.82   | 8400    | 5000, 5500       | 100 W. | 13   |
| 63-455    | T64M79 | 7.06   | 3800    | 2500, 5000, 7500 | 75 W.  | 10   |
| 63-456    | T14M49 | 12.70  | 9000    | 2850, 4500, 6500 | 175 W. | 20   |
| 63-457    | T82M25 | 29.99  | 6000    | 4000, 6000, 8000 | 650 W. | 47   |
| 63-458    | T17M79 | 17.81  | 10000   | 3000, 4500, 6000 | 40 W.  | 8    |
| 63-631    | T13M75 | 9.00   | 10000   | 3000, 4500, 6000 | 75 W.  | 9    |

### PLATE TRANSFORMERS

| Stock No. | Type    | NET    | DC Volts  | DC Ma.  | Fig. | Lbs. |
|-----------|---------|--------|-----------|---------|------|------|
| 63-500    | T19P54  | \$4.23 | 400       | 150     | 2G   | 7    |
| 63-501    | T19P55* | 4.59   | 500-400   | 250     | 2G   | 8    |
| 63-502    | T19P56  | 4.96   | 500-400   | 225     | 2G   | 10   |
| 63-503    | T19P57  | 6.00   | 1000-400  | 125-150 | 2G   | 11   |
| 63-504    | T19P58† | 10.50  | 1000-750  | 200-150 | 2G   | 19   |
| 63-505    | T19P59  | 12.35  | 1000-1250 | 300     | 2K   | 27   |
| 63-506    | T19P60  | 13.22  | 1250-1500 | 300     | 2K   | 29   |
| 63-507    | T19P61  | 15.88  | 1500-1750 | 300     | 2K   | 31   |
| 63-508    | T19P62  | 18.87  | 1750-2000 | 300     | 2K   | 35   |
| 63-509    | T19P63  | 18.77  | 1500-1250 | 300     | 2K   | 38   |
| 63-510    | T19P64  | 20.99  | 1250-1500 | 500     | 2K   | 44   |
| 63-511    | T19P65  | 21.87  | 2000-2500 | 300     | 2K   | 44   |
| 63-512    | T19P66  | 29.28  | 1500-1750 | 500     | 2K   | 46   |
| 63-513    | T19P67  | 31.87  | 1750-2000 | 500     | 2K   | 46   |
| 63-514    | T19P68  | 41.28  | 2000-2500 | 500     | 2K   | 61   |

\* Bias tap at 30 volts. † Designed for double rectifiers; supply both secondary voltages simultaneously.

### SWINGING CHOKES

| Stock No. | Type   | NET    | Hys. | Ma. | Res. | Insul. | Fig. | Lbs. |
|-----------|--------|--------|------|-----|------|--------|------|------|
| 63-530    | T19C39 | \$2.29 | 5-20 | 150 | 215  | 3000   | 2F   | 4    |
| 63-531    | T19C35 | 2.82   | 5-20 | 200 | 130  | 3000   | 2D   | 6    |
| 63-532    | T19C36 | 4.94   | 5-20 | 300 | 105  | 5000   | 2D   | 11   |
| 63-533    | T19C37 | 8.82   | 5-20 | 500 | 90   | 5000   | 2K   | 20   |
| 63-534    | T19C38 | 10.58  | 5-20 | 500 | 75   | 5000   | 2K   | 26   |

### SMOOTHING CHOKES

|        |        |        |    |     |     |      |    |    |
|--------|--------|--------|----|-----|-----|------|----|----|
| 63-550 | T19C45 | \$2.29 | 12 | 150 | 215 | 3000 | 2F | 4  |
| 63-551 | T19C42 | 2.82   | 12 | 200 | 130 | 3000 | 2D | 6  |
| 63-552 | T19C43 | 4.94   | 12 | 300 | 105 | 5000 | 2D | 11 |
| 63-553 | T19C44 | 8.82   | 12 | 500 | 90  | 5000 | 2K | 20 |
| 63-554 | T19C45 | 10.58  | 12 | 500 | 75  | 5000 | 2K | 26 |

## THORDARSON TRANSFORMER CATALOG

Catalog 400F. Lists audio, driver, filament, modulation, plate, power and output transformers; chokes, reactors and voltage changers. Complete table illustrates proper output transformer for matching popular tubes. Complete list of 28 pages.

# STANCOR TRANSFORMERS

STANCOR

## ELECTRONIC TRANSFORMER CATALOG



The Transformer Encyclopedia of the Radio and Electronic Industry. Contains detailed specifications covering Stancor's complete line of transformers and chokes for replacement and general purpose use. A handy classified and numerical index and price list permit instant location and cost estimate of the item you want. Many pages are devoted to transformers designed for special shop, laboratory, and industrial applications. Catalog is illustrated throughout with mounting types available. Send for your copy today.

**37-035. Electronic Transformer Catalog. Latest Edition. FREE.**

**ALLIED** will continue to supply Stancor Transformers on orders without priority restriction for purposes of Repair, Maintenance, Education, and in support of the war effort, where on-hand stocks and government regulations permit. Where priorities are available, shipment of your order can be greatly facilitated if you will extend your highest authorized rating at the time your order is placed.

## TYPE "M" UNIVERSAL POWER TRANSFORMERS



For replacement in 80% of radio sets, 4 brackets give a choice of five mounting positions. Extruded shell for 2-hole mounting. Have electrostatic shielding—\*3 leads. Plate sec. center-tapped—\*3rd filament winding, 2.5 V. at 3.5 A.

### UNIVERSAL REPLACEMENTS FOR 2.5 VOLT TUBES

| Stock No. | Type  | NET    | Volts | Ma. | Fig. 1. | Fig. 2. | Ma. | Wt.  |
|-----------|-------|--------|-------|-----|---------|---------|-----|------|
| No.       | Ma.   |        |       |     |         |         |     | Lbs. |
| 64-108    | P6001 | \$2.18 | 650   | 40  | 5       | 2.0     | 2.5 | 4    |
| 64-109    | P6002 | 2.79   | 700   | 50  | 5       | 2.0     | 2.5 | 4    |
| 64-102    | P6003 | 3.21   | 700   | 70  | 5       | 3.0     | 2.5 | 9.0  |
| 64-103    | P6004 | 3.70   | 900   | 90  | 5       | 3.0     | 2.5 | 12.5 |
| 64-104    | P6005 | 4.20   | 700   | 70  | 5       | 3.0     | 2.5 | 9.0  |
| 64-105    | P6006 | 4.20   | 700   | 120 | 5       | 3.0     | 2.5 | 12.5 |
| 64-106    | P6007 | 4.38   | 800   | 110 | 5       | 3.0     | 2.5 | 15.0 |

### UNIVERSAL REPLACEMENTS FOR 6.3 VOLT TUBES

| Stock No. | Type  | NET    | Volts | Ma. | Fig. 1. | Fig. 2. | Ma. | Wt.  |
|-----------|-------|--------|-------|-----|---------|---------|-----|------|
| No.       | Ma.   |        |       |     |         |         |     | Lbs. |
| 64-107    | P6289 | \$2.18 | 420   | 40  | 5       | 2.0     | 6.3 | 2.0  |
| 64-108    | P6297 | 2.18   | 480   | 40  | 5       | 2.0     | 6.3 | 2.0  |
| 64-117    | P6312 | 3.35   | 580   | 90  | 5       | 2.0     | 6.3 | 2.8  |
| 64-118    | P6313 | 3.58   | 580   | 125 | 5       | 3.0     | 6.3 | 3.3  |
| 64-109    | P6119 | 2.20   | 600   | 55  | 5       | 2.0     | 6.3 | 2.7  |
| 64-110    | P6120 | 2.94   | 630   | 70  | 5       | 3.0     | 6.3 | 3.5  |
| 64-111    | P6010 | 2.18   | 650   | 40  | 5       | 2.0     | 6.3 | 2.0  |
| 64-112    | P6011 | 2.70   | 700   | 50  | 5       | 3.0     | 6.3 | 2.5  |
| 64-113    | P6012 | 3.15   | 700   | 90  | 5       | 3.0     | 6.3 | 3.5  |
| 64-114    | P6013 | 3.47   | 700   | 120 | 5       | 3.0     | 6.3 | 4.7  |
| 64-115    | P6314 | 3.70   | 700   | 200 | 5       | 3.0     | 6.3 | 7.0  |
| 64-120    | P6315 | 4.06   | 740   | 275 | 5       | 3.0     | 6.3 | 7.0  |
| 64-116    | P6316 | 4.56   | 750   | 150 | 5       | 3.0     | 6.3 | 5.0  |
| 64-115    | P6105 | 5.26   | 800   | 200 | 5       | 4.0     | 6.3 | 5.5  |

## STANCOR TRANSMITTING TYPE TRANSFORMERS AND CHOKES

Transmitting and industrial type transformers and chokes. Only most used types are shown. All primaries of filament and plate transformers, unless otherwise indicated, are for 115 V. 50-60 cycles. We can also supply all available Stancor transformers. See complete listings in Stancor Transformer Catalog, and order by Stancor type number. To speed handling of your order, please extend your highest available priority.

**37-036. Complete Stancor Transformer Catalog, sent FREE**

### FILAMENT TRANSFORMERS

| Stock No. | Type   | NET    | Volts | Amps. | Insul. | Fig. | Lbs. |
|-----------|--------|--------|-------|-------|--------|------|------|
| 64-300    | P-6180 | \$1.47 | 2.5   | 5.25  | 2,500  | N    | 3    |
| 64-301    | P-306  | 2.44   | 2.5   | 10.0  | 10,000 | B    | 2    |
| 64-302    | P-5000 | 2.59   | 5.0   | 10.0  | 2,500  | N    | 3    |
| 64-303    | P-3062 | 2.06   | 5.0   | 6.0   | 2,500  | N    | 3    |
| 64-304    | P-6135 | 2.59   | 5.0   | 10.0  | 2,500  | N    | 4    |
| 64-305    | P-6136 | 2.60   | 2.5   | 4.0   | 2,500  | N    | 3    |
| 64-306    | P-6137 | 3.20   | 5.25  | 13.0  | 2,500  | N    | 5    |
| 64-307    | P-5011 | 3.88   | 3.25  | 13.0  | 2,500  | C    | 6    |
| 64-308    | P-6134 | 1.00   | 6.3   | 1.2   | 2,500  | A    | 1    |
| 64-309    | P-5014 | 1.73   | 6.3   | 2.5   | 2,500  | B    | 2    |
| 64-310    | P-6139 | 6.0    | 63.5  | 2.5   | 2,500  | N    | 3    |
| 64-311    | P-4089 | 2.79   | 6.3   | 6.0   | 2,500  | B    | 4    |
| 64-312    | P-3064 | 2.06   | 6.3   | 6.0   | 2,500  | B    | 3    |
| 64-313    | P-6308 | 2.70   | 6.3   | 10.0  | 2,500  | N    | 4    |
| 64-314    | P-5015 | 2.70   | 7.5   | 2.0   | 2,500  | B    | 3    |
| 64-315    | P-6138 | 2.79   | 7.5   | 8.0   | 2,500  | N    | 4    |
| 64-316    | P-4092 | 3.53   | 7.5   | 8.0   | 2,500  | C    | 3    |
| 64-317    | P-5016 | 2.23   | 10.0  | 4.0   | 2,500  | B    | 3    |
| 64-318    | P-6139 | 6.0    | 10.0  | 2.5   | 2,500  | N    | 3    |
| 64-319    | P-4097 | 3.70   | 10.0  | 8.0   | 2,500  | C    | 6    |

\*Secondary is not center-tapped, all others are center-tapped.

### STANDARD MODULATION TRANSFORMERS

| Stock No. | Type   | NET    | Primary      | Secondary    | Audio  | Lbs. |
|-----------|--------|--------|--------------|--------------|--------|------|
| 64-480    | A-3812 | \$1.00 | 10,000       | 4,000        | 5 W.   | 1    |
| 64-481    | A-3845 | 1.41   | 10,000       | 3,000-8,000  | 25 W.  | 4    |
| 64-482    | A-3808 | 4.79   | 6,000        | 3,300-6,250  | 40 W.  | 7    |
| 64-484    | A-3906 | 5.41   | 3,300-3,800  | 4,000-10,000 | 60 W.  | 8    |
| 64-483    | A-2907 | .03    | 8,000        | 3,300-12,500 | 90 W.  | 12   |
| 64-485    | A-3829 | 8.0    | 6,000-9,000  | 3,300-6,250  | 175 W. | 12   |
| 64-486    | A-3816 | 4.07   | 8,000-10,000 | 4,000-9,000  | 500 W. | 68   |
| 64-487    | A-3801 | 2.94   | Poly-Pedance | Poly-Pedance | 15 W.  | 2.5  |

## OUTPUT TRANSFORMERS, AUDIOS AND CHOKES

### OUTPUT TRANSFORMERS

| Stock No. | Type  | NET    | Primary    | Sec.  | Watts | Size, Inches          | Lbs.  |
|-----------|-------|--------|------------|-------|-------|-----------------------|-------|
| 64-001    | A3876 | \$0.68 | 2M1        | 4     | 5     | 1 1/2 x 2 1/2 x 1 1/2 | 1 1/2 |
| 64-002    | A3825 | 1.18   | 2500       | 1.2-4 | 8     | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-003    | A2203 | .91    | 3M         | 8     | 5     | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-004    | A3877 | .68    | 5M         | 1     | 5     | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-016    | A3872 | 2.68   | SM C.T.    | 4, 8  | 18    | 2 1/2 x 2 1/2 x 2 1/2 | 2     |
| 64-005    | A3822 | .85    | 7 & 10M    | 7-4   | 5     | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-006    | A3878 | .68    | 7M         | 4     | 5     | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-007    | A2313 | 1.03   | 7M         | 8     | 10    | 1 1/2 x 2 1/2 x 1 1/2 | 1 1/2 |
| 64-008    | A2203 | 1.4    | 8M C.T.    | 4     | 5     | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-017    | A3304 | 2.82   | 7.10M C.T. | 4-500 | 25    | 3 1/2 x 2 1/2 x 2 1/2 | 3     |
| 64-009    | A3824 | 1.41   | 8M C.T.    | 1.2-4 | 8     | 1 1/2 x 2 1/2 x 1 1/2 | 2     |
| 64-010    | A3885 | 3.88   | 9M C.T.    | 4-500 | 35    | 3 1/2 x 2 1/2 x 2 1/2 | 3     |
| 64-011    | A3879 | .71    | 10M        | 4     | 5     | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-012    | A3831 | 1.03   | 10M C.T.   | 2-4   | 5     | 1 1/2 x 2 1/2 x 1 1/2 | 3     |
| 64-013    | A3839 | 2.32   | 10M C.T.   | 4-2M  | 10    | 2 1/2 x 2 1/2 x 2 1/2 | 2     |
| 64-014    | A3212 | 1.09   | 14M C.T.   | 4     | 10    | 1 1/2 x 2 1/2 x 1 1/2 | 1 1/2 |
| 64-015    | A3881 | 1.1    | 15M        | 4     | 5     | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-015    | A3857 | .94    | 25M C.T.   | 4     | 5     | 1 1/2 x 2 1/2 x 1 1/2 | 1     |

### UNIVERSAL OUTPUT TRANSFORMERS

| Stock No. | Type  | NET    | Primary | Sec.    | Watts | Size, Inches          | Lbs.  |
|-----------|-------|--------|---------|---------|-------|-----------------------|-------|
| 64-025    | A3856 | \$1.09 | 4       | 1 to 30 | 13    | 1 1/2 x 2 1/2 x 1 1/2 | 1 1/2 |
| 64-027    | A3852 | 1.41   | 18      | 1 to 30 | 8     | 1 1/2 x 2 1/2 x 1 1/2 | 1 1/2 |
| 64-028    | A3830 | 2.06   | 20      | 1 to 30 | 2     | 2 1/2 x 2 1/2 x 2 1/2 | 3     |

### FILTER CHOKES

| Stock No. | Type  | NET    | Hys. | Ma. | Ohms | Size, Inches          | Lbs.  |
|-----------|-------|--------|------|-----|------|-----------------------|-------|
| 64-080    | C1706 | \$0.68 | 5    | 50  | 300  | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-081    | C1707 | .68    | 7    | 50  | 500  | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-082    | C1708 | .88    | 10   | 65  | 460  | 1 1/2 x 2 1/2 x 1 1/2 | 1 1/4 |
| 64-083    | C1710 | 1.18   | 9    | 85  | 250  | 1 1/2 x 2 1/2 x 1 1/2 | 1 1/2 |
| 64-084    | C1710 | 1.18   | 8    | 150 | 200  | 2 1/2 x 2 1/2 x 2 1/2 | 2 1/2 |
| 64-062    | C1721 | 2.82   | 15   | 200 | 120  | 3 1/2 x 3 1/2 x 3 1/2 | 4 1/2 |
| 64-085    | C1003 | .91    | 30   | 50  | 550  | 1 1/2 x 3 1/2 x 1 1/2 | 2     |
| 64-086    | C1002 | 1.23   | 30   | 75  | 400  | 2 1/2 x 3 1/2 x 1 1/2 | 2     |
| 64-087    | C1001 | 1.23   | 30   | 110 | 300  | 2 1/2 x 3 1/2 x 1 1/2 | 2     |
| 64-088    | C1515 | 1.26   | 50   | 15  | 750  | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-089    | C2303 | 1.09   | 10   | 130 | 100  | 2 1/2 x 3 1/2 x 1 1/2 | 1     |
| 64-080    | C2304 | 1.09   | 8    | 150 | 65   | 2 1/2 x 3 1/2 x 1 1/2 | 1     |
| 64-061    | C305  | 1.47   | 20   | 100 | 275  | 2 1/2 x 2 1/2 x 2 1/2 | 2     |

### PLATE TO GRID AUDIO INTERSTAGE

| Stock No. | Type | NET    | Ratio | Size, Inches          | Lbs. |
|-----------|------|--------|-------|-----------------------|------|
| 64-070    | A53  | \$0.91 | 3:1   | 1 1/2 x 2 1/2 x 1 1/2 | 1    |
| 64-071    | A63  | 1.06   | 3:1   | 1 1/2 x 2 1/2 x 1 1/2 | 1    |

### PUSH-PULL AUDIO INPUT

| Stock No. | Type             | NET    | Ratio | Size, Inches          | Lbs.  |
|-----------|------------------|--------|-------|-----------------------|-------|
| 64-080    | A4741            | \$1.09 | 2:1   | 2 1/2 x 3 1/2 x 1 1/2 | 1     |
| 64-081    | A53C             | .91    | 3:1   | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-082    | A63C             | 1.06   | 3:1   | 1 1/2 x 2 1/2 x 1 1/2 | 1     |
| 64-083    | C1706            | 1.18   | 3:1   | 2 1/2 x 2 1/2 x 2 1/2 | 3 1/2 |
| 64-084    | A4711 Interstage | 1.32   | 1:1   | 1 1/2 x 2 1/2 x 1 1/2 | 1 1/2 |
| 64-018    | A4404 Driver     | 3.09   | 2:1   | 3 1/2 x 2 1/2 x 1 1/2 | 4     |

### PLATE TRANSFORMERS

| Stock No. | Type   | NET     | DC Volts    | DC Ma.  | Fig. | Lbs. |
|-----------|--------|---------|-------------|---------|------|------|
| 64-425    | P-5000 | \$ 5.17 | 400         | 250     | H    | 10   |
| 64-426    | P-6321 | 5.53    | 500-1000-30 | 250     | C    | 16   |
| 64-427    | P-6315 | 7.35    | 750-2000-30 | 300     | F    | 18   |
| 64-428    | P-6322 | 7.79    | 1000-400    | 130-150 | C    | 14   |
| 64-429    | P-4030 | 9.26    | 1000-750    | 250     | D    | 18   |
| 64-430    | P-6152 | 14.41   | 1500-1000   | 300     | F    | 26   |
| 64-431    | P-5053 | 14.41   | 1500-750    | 300     | F    | 30   |
| 64-432    | P-6156 | 17.35   | 1750-1500   | 300     | F    | 31   |
| 64-433    | P-6154 | 18.23   | 2000-1750   | 300     | F    | 32   |
| 64-434    | P-6155 | 24.1    | 2500-2000   | 300     | F    | 43   |
| 64-435    | P-6153 | 18.82   | 1250-1000   | 500     | F    | 36   |
| 64-436    | P-6157 | 24.11   | 1500-1250   | 500     | F    | 43   |
| 64-437    | P-6159 | 30.72   | 1750-1500   | 500     | F    | 52   |
| 64-438    | P-6162 | 35.33   | 2000-1750   | 500     | F    | 57   |
| 64-439    | P-6163 | 42.63   | 2500-2000   | 500     | F    | 60   |

\*Tapped for dual rectifier. †Has 115-230 V. Primary. ‡After filter.

### SWINGING CHOKES

| Stock No. | Type   | NET    | Hys  | Ma. | Ohms | Insul. | Fig. | Lbs. |
|-----------|--------|--------|------|-----|------|--------|------|------|
| 64-450    | C-1400 | \$2.23 | 8-40 | 175 | 100  | 3000   | C    | 3    |
| 64-451    | C-1401 | 2.76   | 8-30 | 200 | 80   | 3000   | C    | 4    |
| 64-452    | C-1403 | 5.09   | 5-30 | 300 | 80   | 5000   | D    | 9    |
| 64-453    | C-1404 | 6.67   | 5-25 | 400 | 60   | 5000   | D    | 13   |
| 64-454    | C-1305 | 11.11  | 5-20 | 500 | 60   | 5000   | F    | 17   |

### SMOOTHING CHOKES

| Stock No. | Type   | NET    | Hys | Ma. | Ohms | Insul. | Fig. | Lbs. |
|-----------|--------|--------|-----|-----|------|--------|------|------|
| 64-465    | C-1421 | \$2.23 | 25  | 140 | 160  | 3000   | C    | 3    |
| 64-466    | C-1411 | 2.76   | 15  | 200 | 80   | 3000   | C    | 4    |
| 64-467    | C-1402 | 5.09   | 12  | 300 | 80   | 5000   | D    | 9    |
| 64-468    | C-1414 | 6.67   | 10  | 400 | 60   | 5000   | D    | 14   |
| 64-469    | C-1415 | 11.11  | 8   | 500 | 60   | 5000   | F    | 17   |



# KNIGHT TRANSFORMERS

# NEW COILS FOR ALL PURPOSES

## MEISSNER PRECISION-BUILT COILS

### PLASTIC I-F TRANSFORMERS



A popular line of fine I-F transformers priced remarkably low. Trimmer-base and coil-form are molded in one piece from plastic material absolutely unaffected by moisture. Specially-serve. Litz wire is used for the coils. 1 1/4" square by 2 1/4" high. An ideal replacement unit for any set. Fully shielded. Double-tuned. Wt., 1 lb.

| I-F Freq. | Input Stock No. | Interstage Stock No. | Output Stock No. |
|-----------|-----------------|----------------------|------------------|
| 175       | 60-100          | 60-110               | 60-120           |
| 262       | 60-101          | 60-111               | 60-121           |
| 370       | 60-102          | 60-112               | 60-122           |
| 456       | 60-103          | 60-113               | 60-123           |

NET EACH..... **65¢**

### NEW IRON-CORE PLASTIC I-F's

60-130. 456 KC Input (16-6662)  
60-131. 456 KC Output (16-6663)

NET EACH..... **97¢**

### UNIVERSAL ADJUSTABLE FERROCART COILS



Permit exact duplication of defective RF, Ant., or Osc. coils. Inductance variable over wide range for tracking. Black crackle finish shield. Size, 1 1/4" x 1 1/4" x 2 1/2". Covers broadcast band. Shpg. wt., 12 oz.

| UNSHIELDED TYPE                   | NET |
|-----------------------------------|-----|
| 60-135. Antenna (14-1026).....    | 82¢ |
| 60-136. RF Coil (14-1027).....    |     |
| 60-137. Oscillator (14-1028)..... |     |

| SHIELDED TYPE                     | NET  |
|-----------------------------------|------|
| 60-140. Antenna (14-7413).....    | 1.29 |
| 60-141. RF Coil (14-7558).....    |      |
| 60-142. Oscillator (14-7560)..... |      |

### I-F REPLACEMENT MANUAL



New I-F Replacement Manual gives service data never before published. Lists replacement transformers for 9,891 radior. Gives IF frequencies and special connection notes. 254 pages. Wt., 1 lb. 37-720. NET..... **25¢**

### MEISSNER COIL DOPE



High-grade RF lacquer for preserving coil efficiency. No loss in "Q" at any frequency. Quick-drying. 2 oz. can. Shpg. wt., 8 oz.  
60-240. NET..... **35¢**  
60-241. Thinner. NET..... **21¢**

### RADIO FREQUENCY CHOKES



Compact, highly efficient RF chokes for all purposes. Lattice-wound of silk-covered wire; impregnated for trouble free service. Iron-core units have lower distributed capacity. High-Q. Mount screw with 6-32 machine. Av. shpg. wt., 6 oz.

| Mhz.  | Air Core Stock No. | NET | Iron Core Stock No. | NET |
|-------|--------------------|-----|---------------------|-----|
| 2 1/2 | 60-600             | 22¢ | 60-650              | 38¢ |
| 5 1/2 | 60-601             | 22¢ | 60-651              | 38¢ |
| 8     | 60-602             | 22¢ | 60-652              | 38¢ |
| 10    | 60-603             | 22¢ | 60-653              | 38¢ |
| 12    | 60-604             | 22¢ | 60-654              | 38¢ |
| 16    | 60-605             | 22¢ | 60-655              | 38¢ |
| 20    | 60-606             | 22¢ | 60-656              | 38¢ |
| 25    | 60-607             | 22¢ | 60-657              | 38¢ |
| 125   | 60-608             | 39¢ |                     |     |

### SHIELDED RF CHOKES

Compact, silk-covered wire-wound RF chokes. Popular values. Highly efficient. Fully shielded. Lattice wound on acetate dowel. Thoroughly impregnated. Shpg. wt., 6 oz.  
60-620. 2 1/2 mh. NET..... **29¢**  
60-623. 10 mh. NET..... **34¢**  
60-625. 30 mh. NET..... **42¢**  
60-627. 80 mh. NET..... **46¢**

### FERROCART IRON-CORE I-F TRANSFORMERS



Incorporates a finely powdered iron-core with each particle insulated from the others, resulting in a higher "Q." Windings are of high-grade Litz wire, thoroughly impregnated. Gain and selectivity are nearly twice that of air-core types. Ideal for replacements or original installations. Double-tuned from top; mica-dielectric insulated. Black Crackle shield. 1 1/4" square. 3 1/2" high. Shipping weight, 1 lb.

| I-F Freq. | Input Stock No. | Interstage Stock No. | Output Stock No. |
|-----------|-----------------|----------------------|------------------|
| 175 KC    | 60-180          | 60-185               | 60-189           |
| 456 KC    | 60-181          | 60-186               | 60-190           |
| 1500 KC   | 60-182          | 60-187               | 60-191           |

\*Input or Interstage. NET EACH..... **\$1.29**

### COMPACT ANTENNA AND RF COILS



Compact high-impedance bank-wound antenna and RF coils. Highly efficient. For where space is extremely limited. Ideal replacements for compact midgets and auto radior. High-impedance primary windings. Secondaries are Litz-wire wound. Cover Broadcast band, 545 to 1580 KC, with 365 mmf. tuning condenser. Moisture-proofed coil forms. 1/4" diam., 1 1/4" long. Black crackle shields. 1 1/4" dia., 2" high. 8 oz.

| UNSHIELDED TYPE                  | NET |
|----------------------------------|-----|
| 60-150. Ant. coil (14-1022). NET | 29¢ |
| 60-151. RF coil (14-1023). EACH  |     |
| SHIELDED TYPE                    | NET |
| 60-155. Ant. coil (14-1024). NET | 39¢ |
| 60-156. RF coil (14-1025). EACH  |     |

### OSCILLATOR COILS

For 365 mmf. TRF condenser a padder Frequency coverage, 545-1580 KC. 175 KC uses 900 mmf. padder. 456 KC uses 350 mmf. padder. Shields 1 1/4" diam., 1 1/4" high. Easy to mount. Shpg. wt., 1/2 lb.



| Stock No. | Type    | I-F Freq. | EACH |
|-----------|---------|-----------|------|
| 60-160    | 14-3732 | 175 KC    | 50¢  |
| 60-161    | 14-4034 | 456 KC    |      |
| 60-170    | 14-1033 | 456 KC    |      |

\*Special oscillator coil for 6SA7 and 12SA7.

| Stock No. | Type    | I-F Freq. | EACH |
|-----------|---------|-----------|------|
| 60-165    | 14-4242 | 175 KC    | 62¢  |
| 60-166    | 14-4243 | 456 KC    |      |

### NATIONAL LOW FREQUENCY OSCILLATOR COIL

Two separate inductances, closely coupled, in shield can. Used with regenerative coils as interruption-frequency oscillator. Sec. Inductance, 6.25 mh. Tunes to 100 KC with .00041 mfd. condenser. Wt., 5 oz.



71-240. NET..... **99¢**

### REPLACEMENT PRIMARY WINDINGS

High-impedance replacement type primary windings. Permit easy, low-cost repairs. Antenna inductance, 1.7 mh., RF inductance is 3.5 mh. Wt., 2 oz.

| Stock No. | Inside Dia. | Type | Stock No. | Inside Dia. | Type |
|-----------|-------------|------|-----------|-------------|------|
| 60-250    | 1/4"        | Ant. | 60-255    | 1 1/4"      | Ant. |
| 60-251    | 1/4"        | RF   | 60-256    | 1 1/4"      | RF   |
| 60-252    | 1/4"        | Ant. | 60-257    | 1 1/4"      | Ant. |
| 60-253    | 1/4"        | RF   | 60-258    | 1 1/4"      | Ant. |
| 60-254    | 1/4"        | Ant. | 60-259    | 1 1/4"      | Ant. |

NET EACH..... **15¢**

## POPULAR KNIGHT COILS STANDARD I-F's



Compact standard high quality, high-gain double-tuned air-core I-F transformers of superior design. Ideal for replacements and for training kit applications. Lattice-wound primary and secondary windings. Mica-insulated compression type condensers from top of can. Impregnated low-loss Litz wire windings. Easy to mount. RMA color-coded. Lead sealed wires. Metal cans measure 1 1/4" square and 3" high. Black crackle finished. Shpg. wt., 1 lb.

| I-F Freq. | Input Stock No. | Interstage Stock No. | Output Stock No. |
|-----------|-----------------|----------------------|------------------|
| 175 KC    | 60-500          | 60-505               | 60-510           |
| 262 KC    | 60-501          | 60-506               | 60-511           |
| 456 KC    | 60-502          | 60-507               | 60-512           |

NET EACH..... **75¢**

### KNIGHT IRON-CORE I-F TRANSFORMERS

These compact units have high permeability iron-cores and low-loss windings to provide maximum sensitivity and selectivity. Double-tuned from top with mica insulated trimmers. Shield can measures 1 1/4" x 1 1/4" x 3 1/4". SMA color-coded leads. Wt., 1 lb.



| I-F Freq. | Input Stock No. | Output Stock No. |
|-----------|-----------------|------------------|
| 456 KC    | 60-530          | 60-531           |
| 1500 KC   | 60-535          | 60-536           |

NET EACH..... **\$1.05**

### MIDGET SOLENOID COILS

Wound with enameled wire on special tubing 1 1/4" long and 1/4" in diam. For replacement in midjet TRF sets. Primaries are adjustable. Unshielded. Cover 540 to 1750 KC. Tap on coils cover 1500-4000 KC. Insulated. Shpg. wt., each coil, 8 oz.



| Stock No.                                                                                               | Type | NET |
|---------------------------------------------------------------------------------------------------------|------|-----|
| 60-590. RF coil.                                                                                        |      | 19¢ |
| 60-591. Antenna coil.                                                                                   |      |     |
| 60-592. Set of 2 coils. NET.....                                                                        |      | 37¢ |
| 60-593. Tapped for 1500-4000 KC Band. 1 Ant. & 1 RF coil. Shpg. wt., 1 lb. NET, per set of 2 coils..... |      | 44¢ |

### HIGH-IMPEDANCE LITZ COILS

Bank-wound Litz wire antenna and RF coils. With 370 mmf. condenser covers 1500 to 540 KC. Shielded type size, 2 1/4" high, 1 1/4" dia., unshielded, 2 1/4" high, 1 1/4" dia. Unshielded type furnished with universal mica trimmers. High-impedance primaries. Wt., 6 oz.



| Type    | Unshielded    | Shielded      |
|---------|---------------|---------------|
| Ant. RF | 60-550 \$2.26 | 60-551 \$2.33 |
|         | 60-552 \$2.26 | 60-553 \$2.33 |

### HIGH-GAIN TRF COILS

Same as above, but with low-impedance primaries. High sensitivity. Shielded coils are in black crackle-finished non-magnetic cans, 1 1/4" dia. by 2 1/4" high. Shipping weight 6 oz.

| Type    | Unshielded    | Shielded      |
|---------|---------------|---------------|
| Ant. RF | 60-578 \$2.28 | 60-579 \$2.36 |
|         | 60-577 \$2.28 | 60-578 \$2.36 |

### MILLER IRON CORE RF COILS

Small size RF coils, especially desirable where a high-gain coil of small size is required. Shield cans 1 1/4" dia. by 2" high. Tunes 540 to 1600 KC with 365 mmf. condenser. Shpg. wt., 1 lb. 8 oz.  
60-750. Antenna Coil. } EACH **88¢**  
60-751. RF Coil. }  
60-760. Oscillator Coil (465 KC) (Use 400 mmf. pad.) NET **88¢**





# TRANSMITTING CHOKES AND COILS

## ICA CHOKES AND COILS



**MIDGET RF CHOKES**  
Compact radio-frequency chokes for use in receivers

and low-power transmitter stages. Universal winding in four sections on high-grade ceramic core. Inductance, 2.5 millihenries; DC resistance, 16 ohms. Capacity, 150 ma. Size: 1 1/2" long. Shipping weight, 3 oz.  
**60-825. Type 27. EACH.....29c**



### HEAVY-DUTY TYPES

**60-805. 2 1/2 Mh. at 500 Ma.** Five section universal winding. Res. 5 ohms. With removable mounting brackets. Shipping weight, 1 lb. **NET.....\$1.47**

**60-806. 5 Mh. at 500 Ma.** Five universal windings on ceramic core. Res. 12 ohms. Shipping weight, 1 lb. **NET.....\$1.32**

**60-807. 2.8 Mh. at 1000 Ma.** Five tapered section universal-wound sections. Ceramic core. Res. 5 ohms. Shpg. wt. 1 lb. **NET.....\$1.62**



## TRANSMITTING COIL FORMS

An ideal inductance form for transmitters and for numerous other uses. Bakelite body. 3/4" diameter, 3 3/4" long, with molded finger grip rim. Winding space, 3/4". Ribs extending 1/2" insure low-loss air-core winding. Grooved forms are threaded 12 turns per inch. Front spacings fit standard sockets. Shpg. wt. 4 oz. **NET.....53c**

**73-450. 4 prong. NET.....53c**  
**73-451. 5 prong. NET.....56c**  
**73-452. 6 prong. NET.....65c**



## RIBBED CERAMIC COIL FORMS

Plug-in coil forms of low-loss ceramic for use in receivers or low-power stages of transmitters. Ribbed type. Side slot and hole for easy winding. Rim handle reduces breakage hazards. 1 1/4" dia. 1 lb. **NET.....54c**

**73-460. 4 Prong. NET.....43c**  
**73-461. 5 Prong. NET.....48c**  
**73-462. 6 Prong. NET.....54c**



## PLUG-IN TYPE COILS

Space-wound coils for use with 140 mmf. condensers. Forms are smooth bakelite, 1 1/4" dia. and 2 1/4" high; have rim-top, 4-prong bases. With diagrams. Wt., 2 lbs.  
**60-670. Short-Wave Coil Kit. 4 coils cover range from 9.5 to 217 meters. NET.....\$1.08**

**60-671. Broadcast Coil Kit. 2 coils cover range from 190 to 550 meters. NET.....95c**



## BAKELITE COIL FORMS RIM TYPE

Low-loss forms with high dielectric strength. Molded rim handle for easy grip. 1 1/4" dia. 2 1/4" high. 4 oz. Stock No. Prongs EACH

**60-700 4.....21c**  
**60-701 5.....21c**  
**60-702 6.....21c**



## BUD MIDGET PLUG-IN COILS

Compact air-wound inductors for use in all stages with inputs of 50 watts or less. Glazed ceramic mounting base keeps coil away from chassis. For 5-prong socket. Center and adjustable link types are center tapped. End link type not tapped. Enamelled-copper windings. 1/2 lb.

| Freq. Band | Center Link | End Link | Adj. Link | NET EACH |
|------------|-------------|----------|-----------|----------|
| 160        | 73-035      | 73-025   | 73-034    | \$1.03   |
| 80         | 73-034      | 73-024   | 73-033    |          |
| 40         | 73-033      | 73-023   | 73-032    | .97      |
| 20         | 73-032      | 73-022   | 73-031    |          |
| 10         | 73-031      | 73-021   | 73-030    |          |
| 5          | 73-030      | 73-020   |           | .79      |

## HAMMARLUND CHOKES AND COIL FORMS



**MIDGET CH-X CHOKES**

For receivers and transmitters. Adaptable to many uses in even the smallest space. Universal-winding. Entirely impregnated. Center core is of Isolantite. May be mounted by its own leads in any position. DC resistance, 35 ohms. 2 1/2" long. 1 1/2" x 1/4". 4 oz.

**72-375. NET.....30c**

### TYPE CH-8 CHOKES

A low-loss type 8 mH. RF choke. Section-wound on compact Isolantite pool. Moisture-proof windings are protected by lacquer and cellophane. Equipped with flexible leads and reversible end brackets for universal mounting. DC resistance, 70 ohms. Current rating 125 ma. 1 1/2" x 1/4". Shpg. wt. 4 oz.

**72-376. NET.....90c**

### TYPE CH-250 CHOKES

Low-loss compact RF chokes for low power X-meters and receivers. Four universal wound impregnated pies on 1/4" Isolantite core. 250 ma. current rating; 1 mH. inductance; 10 ohms DC resistance. Ideal for all applications where space is limited. Mounts by means of heavy leads. Only 1/4" in diam.; 1 1/4" long. Shipping weight, 4 oz.

**72-377. NET.....30c**

### TRANSMITTING CHOKES—CH-500

A heavy-duty choke for parallel feed in high-powered transmitters in 10-20-40-80-160-meter bands. Has universal-wound pies on Isolantite core. Inductance, 2 1/2 mH.; DC resistance, 8 ohms. 500 ma. continuous rating. Size: 1 1/4" diam. x 2 1/4" long. Wt., 6 oz.

**72-378. NET.....\$1.05**



### RFC-85 CHOKES

High inductance choke for use in plate circuits of all B.C. and S.W. receivers. Specially wound and impregnated; extremely low distributed capacity for maximum efficiency. Inductance, 85 mH.; DC resistance, 215 ohms.

Max. current rating, 60 ma. Bakelite case is 1 1/4" high and 1 1/4" in dia. Wt., 8 oz. **NET.....\$1.80**

**72-379. NET.....**



### "SWF" LOW-LOSS COIL FORMS

Rugged low-loss forms of XP-53. Ribbed for air-spacing, with flange rim. Have shell inside for mounting padding condenser. 1 1/4" dia. x 2 1/4". Natural amber color. 4 oz.

**72-275. 4 Prong.....30c**

**72-276. 5 Prong/EACH.....30c**

**72-277. 6 Prong.....36c**

### "TCF" X-MITTING COIL FORMS

Of low-loss XP-53 dielectric. Ribbed for air-spacing; with flange grips. May be base-mounted on brackets supplied or plugged-in. 2 1/4" dia. x 3 3/4" long. Shpg. wt., 6 oz.

**72-265. TCF-4. 4 Prong.....48c**

**72-266. TCF-5. 5 Prong/EACH.....48c**



### "CF-M" COIL FORM

Isolantite coil forms designed for maximum efficiency at ultra-high frequencies. Forms are 1 1/4" in diameter, 2 1/4" long exclusive of leads, and have holes drilled to permit almost any type of experimental winding. Made in 5-prong type only. Ideal for UHF receiver or transmitter coils. Shpg. wt., 4 oz.

**72-285. NET.....78c**



### OHMITE R.F. PLATE CHOKES

**74-310. TYPE Z1. 5 meter choke. 5.5 microhenries. 85 ohms DC resistance. Ma. 1 1/4" long. Pigtail leads. NET.....15c**

**74-311. TYPE Z2. 10-20 meter. Illustrated. With brackets. 30 microhenries. 2 ohms. 1000 ma. NET.....44c**

## NATIONAL CHOKES



### TYPE R-100 RF CHOKES

Ideal for high frequency circuits. Extensively used in receivers and low-power stages of transmitters. Has continuous 4 section universal winding on Isolantite form. Distributed capacity is only 1 mmi. 2 1/2 mH. 125 ma. 50 ohm DC resistance. Shpg. wt. 2 oz. ea.

**71-150. NET.....30c**

**71-151. R100U.** As above but on small standard insulator for vertical mounting; has pig-tail terminals. **NET.....36c**

**71-152. R300.** Similar to R-100. 1 mH. 300 ma., 10 ohm DC resistance. **NET.....30c**

**71-153. R300U.** Same as R300 with stand-off for vertical mounting. **NET.....36c**

## TRANSMITTER CHOKES

Universal chokes with honeycomb-type windings. Rated at 600 ma., continuously. Inductance, 4 mH. 10 ohms DC resistance. R152 for 30 and 160 meters. R154 for 20, 40, and 80 meters; 1 mH. 6 ohms.

**71-154. R152. NET.....\$1.50**

**71-155. R154. NET EACH.....\$1.50**

**71-156. Type R154U.** For 20, 40 and 80 meter bands. Five section honeycomb coil on Isolantite core, with solder lugs. Rated at 600 ma. continuously. 1 mH. DC resistance, 6 ohms. Has insulating pillar and third 1/2" mounting foot. 1 lb. **NET.....\$1.17**

**71-157. Type R154U. NET.....\$1.17**

**71-158. Type R154U. NET.....\$1.17**

**71-159. Type R154U. NET.....\$1.17**

**71-160. Type R154U. NET.....\$1.17**

**71-161. Type R154U. NET.....\$1.17**

**71-162. Type R154U. NET.....\$1.17**

**71-163. Type R154U. NET.....\$1.17**

**71-164. Type R154U. NET.....\$1.17**

**71-165. Type R154U. NET.....\$1.17**

**71-166. Type R154U. NET.....\$1.17**

**71-167. Type R154U. NET.....\$1.17**

**71-168. Type R154U. NET.....\$1.17**

**71-169. Type R154U. NET.....\$1.17**

**71-170. Type R154U. NET.....\$1.17**

**71-171. Type R154U. NET.....\$1.17**

**71-172. Type R154U. NET.....\$1.17**

**71-173. Type R154U. NET.....\$1.17**

**71-174. Type R154U. NET.....\$1.17**

**71-175. Type R154U. NET.....\$1.17**

**71-176. Type R154U. NET.....\$1.17**

**71-177. Type R154U. NET.....\$1.17**

**71-178. Type R154U. NET.....\$1.17**

**71-179. Type R154U. NET.....\$1.17**

**71-180. Type R154U. NET.....\$1.17**

**71-181. Type R154U. NET.....\$1.17**

**71-182. Type R154U. NET.....\$1.17**

**71-183. Type R154U. NET.....\$1.17**

**71-184. Type R154U. NET.....\$1.17**

**71-185. Type R154U. NET.....\$1.17**

**71-186. Type R154U. NET.....\$1.17**

**71-187. Type R154U. NET.....\$1.17**

**71-188. Type R154U. NET.....\$1.17**

**71-189. Type R154U. NET.....\$1.17**

**71-190. Type R154U. NET.....\$1.17**

**71-191. Type R154U. NET.....\$1.17**

**71-192. Type R154U. NET.....\$1.17**

**71-193. Type R154U. NET.....\$1.17**

**71-194. Type R154U. NET.....\$1.17**

**71-195. Type R154U. NET.....\$1.17**

**71-196. Type R154U. NET.....\$1.17**

**71-197. Type R154U. NET.....\$1.17**

**71-198. Type R154U. NET.....\$1.17**

**71-199. Type R154U. NET.....\$1.17**

**71-200. Type R154U. NET.....\$1.17**

**71-201. Type R154U. NET.....\$1.17**

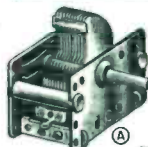
**71-202. Type R154U. NET.....\$1.17**

**71-203. Type R154U. NET.....\$1.17**

**71-204. Type R154U. NET.....\$1.17**

**71-205. Type R154U. NET.....\$1.17**

# VARIABLE CONDENSERS TRIMMERS ACCESSORIES



## Knight VARIABLE CONDENSERS

Compact, general-purpose tuning condensers for laboratory repair or replacement work. Rigid, sturdy construction throughout. All units have ball-bearing shafts; stators insulated with low-loss bakelite. Capacity increases with clockwise rotation. Shafts are 1/4" diameter; project 1 1/4". Easily mounted and have threaded holes for lug mounting. Single gang units, 61-052, 61-054, and 61-055, are supplied without trimmer condensers; all 2- and 3-gang units have trimmers and rotor plates slotted to facilitate accurate alignment. Wiping contact-spring. Shpg. wt., single units, 1 lb.; 2- and 3-gang units, 2 lbs.

| No.    | Mmf. | Gangs | Fig. | Size                     | NET    |
|--------|------|-------|------|--------------------------|--------|
| 61-052 | 140  | 1     | A    | 3 1/2" x 1 1/2" x 1 1/2" | \$1.19 |
| 61-054 | 370  | 1     | A    | 3 1/2" x 1 1/2" x 1 1/2" | 1.19   |
| 61-055 | 370  | 1     | A    | 3 1/2" x 1 1/2" x 1 1/2" | 1.19   |
| 61-056 | 150  | 1     | B    | 2 1/2" x 1 1/2" x 1 1/2" | 1.45   |
| 61-070 | 370  | 2     | B    | 2 1/2" x 1 1/2" x 1 1/2" | 2.10   |
| 61-071 | 370  | 2     | B    | 2 1/2" x 1 1/2" x 1 1/2" | 2.10   |
| 61-075 | 450  | 2     | B    | 2 1/2" x 1 1/2" x 1 1/2" | 2.10   |
| 61-076 | 450  | 3     | B    | 2 1/2" x 1 1/2" x 1 1/2" | 2.10   |
| 61-085 | 370  | 2     | B    | 1 1/2" x 1 1/2" x 1 1/2" | 1.08   |

## ICA CERAMIC-INSULATED MIDGET CONDENSERS



Ceramic insulation prevents RF losses, high voltage breakdowns, and insures moisture-proofing. Non-corrosive plates. Wiping phosphor-bronze rotor-contacts. Mounts in 1/4" hole. Size with plates open, 1 1/4" x 1 1/4". Brass shaft, 1/4" diam., extends 1 1/4" to 1 1/2".

| Stock No. | Max. Mmf. | Min. Mmf. | No. of Plates | NET EACH |
|-----------|-----------|-----------|---------------|----------|
| 61-100    | 15        | 3         | 4             | 71c      |
| 61-101    | 25        | 3.5       | 4             | 70c      |
| 61-102    | 50        | 6         | 17            | 79c      |
| 61-103    | 80        | 6         | 14            | 88c      |
| 61-104    | 100       | 6         | 14            | 88c      |
| 61-105    | 140       | 7         | 19            | \$1.03   |

## DOUBLE SPACED UNIT

|        |    |     |    |        |
|--------|----|-----|----|--------|
| 61-110 | 35 | 6.5 | 10 | \$1.03 |
|--------|----|-----|----|--------|

## HAMMARLUND "STAR" MIDGET CONDENSERS



Popular low-priced midgets for general radio-algebraic use. Sizes for short wave tuning, regeneration, verniers, etc. Single hole mount, 1/4" shaft. Size, 1 1/4" x 1 1/2" high, and up to 1 1/2" deep behind panel. Wt., 6 oz.

| Stock No. | Mfr's Type | Max. Mmf. | Min. Mmf. | NET EACH |
|-----------|------------|-----------|-----------|----------|
| 72-200    | SM-15      | 15        | 3         | 54c      |
| 72-201    | SM-25      | 25        | 3.5       | 54c      |
| 72-202    | SM-50      | 50        | 6         | 60c      |
| 72-203    | SM-100     | 100       | 6         | 72c      |
| 72-204    | SM-140     | 140       | 7         | 84c      |
| 72-205    | SM-15X     | 15        | 6.5       | 72c      |
| 72-206    | SM-50X     | 50        | 7.5       | 84c      |

\*Double-spaced units with .004" airgap for low-power transmitters. Others, .032".

## TRIMMER AND PADDER CONDENSERS



For HF, IF, and Oscillator circuits. Made of bakelite base. Screwdriver adjustment. May be shunted by fixed condenser to increase maximum capacity. Lug connectors. Shipping weight, 3 oz.

| No.    | Mmf.    | NET | No.    | Mmf.     | NET |
|--------|---------|-----|--------|----------|-----|
| 60-300 | 25-100  | 15c | 60-306 | 325-1000 | 33c |
| 60-301 | 75-225  | 18c | 60-307 | 600-1600 | 36c |
| 60-302 | 125-350 | 21c | 60-309 | 600-1600 | 42c |
| 60-303 | 175-500 | 23c | 60-310 | 700-1800 | 45c |
| 60-304 | 225-650 | 26c |        |          |     |

## TRIMMER CONDENSERS



Ideal for balancing, trimming, neutralizing, antenna coupling. Has low-loss bakelite base, size 1 1/4" x 1 1/2" x 1/4". Compact full-plate type, with mica dielectric, 3-30 mmf. Wt., 3 oz.

60-330. NET EACH... 8c

10 FOR... 72c

60-331. Ceramic Type. Has a ceramic base instead of bakelite. Low-loss. Measures 3/4" x 1 1/4" x 1/4". 18 for 50c. NET EACH... 10c

## SHAFT FITTINGS

For Every Purpose



## COUPLINGS AND EXTENSIONS

Couplings are for extending shafts of volume controls, condensers, etc., or for ganging single units, even when shafts are not of same diameter. Extenders are for decreasing or increasing shaft diameter and for extending shaft length.

| Stock No.<br>Insulated | Brass  | Kind     | Size         |
|------------------------|--------|----------|--------------|
| 60-350                 | 60-360 | Coupling | 1/4" x 1/4"  |
| 60-351                 | 60-361 | Coupling | 1/2" x 1/2"  |
| 60-352                 | 60-362 | Coupling | 3/4" x 3/4"  |
| 60-353                 | 60-363 | Ext.     | 1/4" to 1/2" |
| 60-356                 | 60-366 | Ext.     | 1/2" to 3/4" |
| 60-357                 | 60-367 | Ext.     | 3/4" to 1"   |

18 FOR \$1.08 100 FOR \$9.95 NET EACH... 12c

## SPLIT BUSHING

For increasing shaft diameter from 1/4" to 3/4". Brass, 1/4" inside diam., 3/4" outside diam. 1/4" long. See illustration above.

60-380. 10 FOR 54c. EACH... 6c

## PANEL BEARING ASSEMBLY

For use with rigid or flexible couplings for mounting volume controls, etc., away from the panel. Use these panel bearings for reducing body capacity in UHF equipment. Made of brass. Take panels up to 3/4" thick. For 1/4" shaft. Supplied with 2 fibre insulating washers. Shpg. wt., 1 lb.

60-385. Overall length 3". NET... 28c

60-386. Overall length 6". NET... 35c

60-390. Bearing only. NET... 5c

## FLEXIBLE COUPLINGS

Insulated flexible shaft couplings for coupling drive shafts to condensers, gang switches, tandem condensers, etc. Bakelite insulation. Hubs on each side drilled to fit 1/4" shaft; set screws hold illustration above.

60-395. NET... 30c

60-396. Same as 60-395 above, except has low-loss type ceramic insulation for use in UHF circuits. NET... 38c

## WALSCONIBELT

Adjustable dial belt to fit any dial. Sizes listed will cover all popular replacements. Installed quickly without taking dial apart—just cut to size and push together. Will not stretch or slip. Shpg. wt., 8 oz.

60-470. Popular Unibelt Kit. Contains 10 belts assorted, most used sizes. NET... \$2.80

60-471. 6 1/2" to 10" size. NET EA. 29c

60-472. 10 1/2" to 13 1/2" size. NET EA. 29c

60-473. 14 1/2" to 17 1/2" size. NET EA. 33c

60-474. 19 1/2" to 22 1/2" size. NET EA. 26c

## KNIGHT-CROWE SLIDE-RULE

### 4" RADIO DIAL

Beautiful Cro-Art Slide-Rule Dial. Has black figures on bronze background. Scales, 550 to 1700 KC and universal 0-100. For extra critical tuning. Direct drive. Has a 1/4" diameter shaft on the pulley hub. Requires 1 1/2" x 3/4" hole. Exceptionally easy to install. Comes with modern bronze escutcheon, non-breakable crystal and pilot-light socket. Shpg. wt., 1 lb. \$2.300.

NET... \$1.08

## KURZ-KASCH

### 3" VERNIER DIAL

Always popular with lab men and experimenters. Made of black bakelite. Universal scale readable 0-100.0. Smooth positive friction-drive action; no backlash. Fit 1/4" shaft. Has 9 1/2" hole for extra critical tuning. Size: 3" wide, 3 1/2" high. Shipping weight, 1 lb. \$5.321.

NET... 75c

## JFD DIAL BELT KITS

Moisture-proof woven-fabric dial belts. Will not stretch. Especially treated to provide maximum friction. Kit of 25 contains one each of the most popular numbers; kit of 100 includes 90 different types to fit over 900 sets. Each kit supplied with free steel cabinet, belt scale and JFD book of belt and ballast replacement data for over 1100 standard radio sets. A required part of every serviceman's stock. Saves time and money in making replacements. Shpg. wt., 60-455, 3 lb. 60-456, 5 lbs. 60-455, 25 Assorted, NET... \$3.67

60-456, 100 Assorted, NET... \$13.23

We can supply any single belt for 15c each. Order by JFD part number or send in the defective belt, with price and postage, for correct duplication.

## BRAIDED SILK DIAL CORD

Durable dial-cable of pure braided silk, with water-proof finish. Available only as long as stock lasts.

| Stock No. | Length | NET    |
|-----------|--------|--------|
| 60-441    | 3 ft.  | \$0.27 |
| 60-442    | 25 ft. | .97    |

## PHOSPHOR BRONZE DIAL CABLE

42 strands—6 cables each of 7 strands of phosphor bronze wire, around line-core; or braided from 16 strands of fine bronze wire woven together. Won't slip, stretch or chafe. Extremely strong. Will fit practically all drum dials where flexible cable is required. Should be in every service kit. Shpg. wt., 1 lb.

| 42 Stranded |     | Length | 16 Braided |     |
|-------------|-----|--------|------------|-----|
| No.         | NET |        | No.        | NET |
| 60-421      | 23c | 5 ft.  | 60-431     | 12c |
| 60-422      | 84c | 25 ft. | 60-432     | 33c |

## DIAL DRIVE RUBBERS

Box of 25 assorted dial-drive friction rubbers in eight different types. Used in such sets as RCA, Atwater Kent, Stewart Warner, etc. 1 lb. 60-400. NET \$4.84.

## NON-SLIP DIAL COMPOUND

A special powder for aiding repair of all belts and cord driven dials. Prevents slipping. Easy to apply. This compound will save you time and money in dial repair work. Shipping weight, 1 lb. 60-403. NET... 18c



# TRANSMITTING CONDENSERS AND ACCESSORIES

## HAMMARLUND CONDENSERS

### MIDGET TYPE



High quality midget condensers. Insulated with Isolantite. Cadmium-plated brass plates. .0225" thick with an .0245" air gap. Are securely soldered to the 1/4" shaft. Tested at 500 V. A.C. Clockwise rotation. Shpg. wt. 1 lb.

| Stock No. | Mfr's. Type | Max. Mmf. | Min. Mmf. | NET EACH |
|-----------|-------------|-----------|-----------|----------|
| 72-425*   | MC-20-S     | 20        | 5.5       | \$1.32   |
| 72-426*   | MC-36-S     | 35        | 6.0       | 1.38     |
| 72-427*   | MC-60-S     | 50        | 6.5       | 1.44     |
| 72-428*   | MC-60-M     | 50        | 6.3       | 1.44     |
| 72-429*   | MC-75-S     | 80        | 8.0       | 1.56     |
| 72-430    | MC-75-M     | 80        | 7.3       | 1.56     |
| 72-431*   | MC-100-S    | 100       | 8.3       | 1.68     |
| 72-432    | MC-100-M    | 100       | 7.5       | 1.68     |
| 72-433*   | MC-140-M    | 140       | 9.0       | 1.80     |
| 72-434*   | MC-140-S    | 140       | 10.0      | 1.80     |
| 72-435    | MC-200-M    | 200       | 11.3      | 1.98     |
| 72-436    | MC-260-M    | 260       | 12.0      | 2.16     |
| 72-437    | MC-326-M    | 320       | 13.5      | 2.40     |

\*Semi-circular plates. All others are Midline.

### DOUBLE-SPACED MIDGETS

For moderate power. Air-gap .0715".

| Stock No. | Mfr's. Type | Max. Mmf. | Min. Mmf. | NET EACH |
|-----------|-------------|-----------|-----------|----------|
| 72-450    | MC-20-MX    | 20        | 6.5       | \$1.44   |
| 72-451*   | MC-36-SX    | 35        | 6.8       | 1.44     |
| 72-452*   | MC-60-SX    | 50        | 7.5       | 1.56     |
| 72-453    | MC-35-MX    | 32        | 7.8       | 1.56     |
| 72-454*   | MC-50-SX    | 50        | 11.5      | 1.68     |
| 72-455*   | MC-50-MX    | 50        | 12.0      | 1.68     |
| 72-456*   | MC-100-SX   | 100       | 16.5      | 2.16     |

\*Semi-circular plates. All others are Midline.

### "APC" MICROS



High quality air-dielectric condensers; compact in size. Particularly adaptable to S.W. Isolantite base. Air gap .015". Will fit 1/4" dia. coil forms. Screwdriver adjustment. 4 oz.

| Stock No. | Mfr's. Type | Max. Mmf. | Min. Mmf. | NET EACH |
|-----------|-------------|-----------|-----------|----------|
| 72-250    | APC-26      | 25        | 3.0       | \$0.78   |
| 72-251    | APC-50      | 50        | 3.0       | 1.02     |
| 72-252    | APC-75      | 75        | 4.5       | 1.02     |
| 72-253    | APC-100     | 100       | 5.5       | 1.14     |
| 72-254    | APC-140     | 140       | 6.5       | 1.35     |

### "HF" MICROS



Very efficient in tuning or trimming critical high frequency circuits. Heavily plated plates. Isolantite insulation. Equipped with special wide front bearing. Double-spaced units. Shpg. wt. 4 oz.

| Stock No. | Mfr's. Type | Max. Mmf. | Min. Mmf. | NET EACH |
|-----------|-------------|-----------|-----------|----------|
| 72-215    | HF-15       | 17.5      | 2.8       | \$0.84   |
| 72-216    | HF-35       | 35        | 3.2       | .96      |
| 72-217    | HF-50       | 50        | 3.5       | 1.02     |
| 72-218    | HF-100      | 100       | 5.3       | 1.26     |
| 72-219    | HF-140      | 140       | 6.2       | 1.44     |
| 72-220    | HF-15-X     | 15        | 3.6       | 1.02     |
| 72-221    | HF-30-X     | 30        | 5.2       | 1.14     |

### "HFD" DUAL MICROS

| No.    | Type     | Cap. per Sec. | NET    |
|--------|----------|---------------|--------|
| 72-230 | HFD-50   | 50            | \$2.16 |
| 72-231 | HFD-100  | 100           | 2.46   |
| 72-232 | HFD-140  | 140           | 2.70   |
| 72-233 | HFD-15-X | 16            | 2.04   |
| 72-234 | HFD-30-X | 28.5          | 2.28   |

## TRIMMERS AND PADDERS

### "EC" EQUALIZERS



For balancing, neutralizing and trimming purposes. Mica dielectric; bakelite base. 1 1/4" x 1 1/4". Adjusting screw in center. Shpg. wt. 2 oz.

| Stock No. | Type       | Cap. per Sec. | NET |
|-----------|------------|---------------|-----|
| 72-350    | 3-35 Mmf.  |               | 20¢ |
| 72-351    | 25-80 Mmf. |               | 26¢ |

### "MEX" EQUALIZER

Extremely small low-loss condenser. Screw adjustment. Isolantite base, with mica dielectric and phosphor-bronze plates. 3 to 30 mmf. 3/4" x 1/4". Shpg. wt. 2 oz.

| Stock No. | Type | Cap. per Sec. | NET |
|-----------|------|---------------|-----|
| 72-342    | NET  |               | 18¢ |

## NATIONAL CONDENSERS

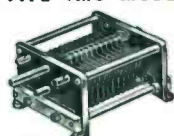
### TYPE TMS



Precision type condensers for low-power stages of transmitters. Air-gaps: .026" for TMS types; .024" for TMSA. \*Low C condensers are rated at 2000 V. Peak; others are 1000 V. Peak. Average shipping weight, 2 lbs.

| Stock No.       | Mfr's. Type | Max. Mmf. | Min. Mmf.     | NET EACH |
|-----------------|-------------|-----------|---------------|----------|
| 71-000 TMS-100  |             | 100       | 9.5           | \$1.65   |
| 71-001 TMS-150  |             | 150       | 11            | 1.83     |
| 71-002 TMS-250  |             | 250       | 13.5          | 1.98     |
| 71-003 TMS-300  |             | 300       | 15            | 2.37     |
| 71-004 TMS-50D  |             | 50-50     | 6-6           | 2.49     |
| 71-006 TMS-100D |             | 100-100   | 7-7           | 2.97     |
| 71-006 TMSA-35  |             | *35       |               | 3.98     |
| 71-007 TMSA-50  |             | *50       | 11            | 2.16     |
| 71-008 TMSA-50D |             | *50-50    | 10 1/2-10 1/2 | 2.64     |

### TYPE TMC MODERATE POWER



For use in power stages of transmitters where peak voltage does not exceed 3000 V. Extremely rigid frame. Full Isolantite insulation. Plates have buffed edges; air-gap is .077". \*Dual rotor. Av. wt., 4 lbs.

| Stock No.       | Mfr's. Type | Max. Mmf. | Min. Mmf.     | NET EACH |
|-----------------|-------------|-----------|---------------|----------|
| 71-015 TMC-50   |             | 50        | 10            | \$2.44   |
| 71-016 TMC-100  |             | 100       | 13            | 2.97     |
| 71-017 TMC-150  |             | 150       | 17            | 3.48     |
| 71-018 TMC-250  |             | 250       | 23            | 3.96     |
| 71-019 TMC-300  |             | 300       | 25            | 4.29     |
| 71-020 TMC-50D  |             | *50-50    | 9-9           | 4.29     |
| 71-021 TMC-100D |             | *100-100  | 11-11         | 4.95     |
| 71-022 TMC-200D |             | *200-200  | 18 1/2-18 1/2 | 6.60     |

### TYPE ST



Straight-line wavy-line type. 180° Isolantite insulated. Airgaps: STHS, 5 mil. STHD, .018"; STD and STB, .026". Wt., 1 lb.

| Stock No. | Mfr's. Type | Max. Mmf. | Min. Mmf.   | NET EACH |
|-----------|-------------|-----------|-------------|----------|
| 71-030    | STHS-15     | 15        | 3           | \$0.93   |
| 71-031    | STHS-25     | 25        | 3.25        | .99      |
| 71-032    | STHS-50     | 50        | 3.5         | 1.05     |
| 71-033    | ST-35       | 35        | 6           | .99      |
| 71-034    | ST-50       | 50        | 7           | 1.05     |
| 71-035    | ST-75       | 75        | 8           | 1.32     |
| 71-036    | ST-100      | 100       | 9           | 1.50     |
| 71-037    | ST-140      | 140       | 10          | 1.65     |
| 71-038    | ST-150      | 150       | 10.5        | 1.65     |
| 71-039    | STH-200     | 200       | 13          | 2.03     |
| 71-040    | STH-250     | 250       | 13.5        | 1.98     |
| 71-041    | STH-300     | 300       | 15          | 2.16     |
| 71-042    | STH-335     | 335       | 17          | 2.31     |
| 71-043    | STH-50      | 50-50     | 5-5         | 2.51     |
| 71-044    | STHD-100    | 100-100   | 5 1/2-5 1/2 | 2.97     |

## NEUTRALIZING CONDENSERS

### TYPE NC-600

A small-sized neutralizing condenser suitable for use with 6L6's and similar beam power tubes. Has adjustment range from .5 mmf. to 4 mmf. Isolantite insulated. Shpg. wt., 6 oz.

| Stock No. | Type     | Cap. per Sec.                              | NET |
|-----------|----------|--------------------------------------------|-----|
| 71-092    | NET      |                                            | 30¢ |
| 71-093    | NC-600U. | As above but on small stand-off insulator. | 36¢ |

## CONDENSER COUPLING



Bakelized canvas insulation; brass bushings. Flexible for coupling condensers, etc., without need of exact shaft alignment. For 1/4" shafts. 1 1/2" diameter. Shpg. wt., 3 oz.

| Stock No. | Type | Cap. per Sec. | NET |
|-----------|------|---------------|-----|
| 72-485    | NET  |               | 45¢ |

### FLEXIBLE SHAFTS

Non-rusting phosphor-bronze flexible shafts with 1/4" hubs. Permit control up to 90 degrees. Hubs will not loosen.

| Stock No. | Type            | 253. 3" length. | NET |
|-----------|-----------------|-----------------|-----|
| 73-290    | 253. 3" length. |                 | 21¢ |
| 73-291    | 254. 6" length. |                 | 29¢ |

## BUD CONDENSERS

### TRANSMITTING TYPE

J.C. For low and medium power. Uses only 3" x 2 1/4" panel space. Rounded plates. Aismag 196 insulated. Avg. shpg. wt., 3 lbs.



| Stock No. | Mfr's. Type | Max. Mmf. | Min. Mmf. | Air Gap | NET EACH |
|-----------|-------------|-----------|-----------|---------|----------|
| 72-900    | 1525        | 50        | 4         | .051"   | \$2.15   |
| 72-901    | 1536        | 100       | 6         | .051"   | 2.32     |
| 72-904    | 1529        | 340       | 15        | .051"   | 4.26     |
| 72-905    | 1530        | 25        | 4         | .078"   | 2.12     |
| 72-906    | 1531        | 35        | 4         | .078"   | 2.12     |
| 72-907    | 1532        | 35        | 4         | .078"   | 2.47     |
| 72-908    | 1533        | 80        | 7         | .078"   | 2.62     |
| 72-909    | 1534        | 110       | 9         | .078"   | 3.00     |
| 72-910    | 1535        | 150       | 12        | .078"   | 3.00     |
| 72-915    | 1540        | 55        | 9         | .144"   | 3.00     |
| 72-916    | 1541        | 80        | 12        | .144"   | 3.44     |
| 72-917    | 1542        | 105       | 15        | .144"   | 4.00     |
| 72-918    | 1545        | 55        | 10        | .175"   | 3.85     |
| 72-922    | 1547        | 100       | 17        | .175"   | 5.12     |

### BUD MIDGETS

Single bearing type; wiping spring contact on rotor; mounts in 3/4" hole. Electro-soldered plates; ceramic insulated. Semi-circular plates. Double spaced units. .060" airgap; others, .024". Wt. 12 oz.



| Stock No. | Plates | Max. Mmf. | Min. Mmf. | NET EACH |
|-----------|--------|-----------|-----------|----------|
| 61-150    | 3      | 4         | 15        | \$0.65   |
| 61-151    | 5      | 6         | 50        | .76      |
| 61-152    | 7      | 6         | 50        | .76      |
| 61-154    | 14     | 7         | 100       | .94      |
| 61-155    | 19     | 7         | 140       | 1.03     |

### DOUBLE SPACED

| Stock No. | Plates | Max. Mmf. | Min. Mmf. | NET EACH |
|-----------|--------|-----------|-----------|----------|
| 61-150    | 3      | 4         | 15        | \$0.79   |
| 61-160    | 11     | 7         | 35        | 1.06     |
| 61-161    | 15     | 8         | 50        | 1.06     |

## NEUTRALIZING CONDENSERS

### BUD FEED-THRU TYPE

For neutralizing tubes which have grid lead terminating at the base. Provides a more compact installation. Knurled nut permits locking for permanent settings. Single hole mounting. Shpg. wt., 6 oz.



| Stock No. | Hole Dia. | Plate Dia. | Cap. Mmf. | NET EACH |
|-----------|-----------|------------|-----------|----------|
| 73-410    | 1/4"      | 1 1/4"     | 4         | \$0.88   |
| 73-411    | 1/4"      | 1 1/4"     | 7.5       | 2.06     |

## BUD MIDGET TYPE

For use with beam type tubes in transmitters. Has two 1" disc plates. Ceramic stand-off insulator, crow foot base. Shpg. wt., 4 oz.



| Stock No. | Type | Cap. per Sec. | NET |
|-----------|------|---------------|-----|
| 73-412    | NET  |               | 79¢ |

## MILLEN MIDGETS

Compact midgets for receivers or low power transmitters. Double spaced, ultra-high frequency type. Insulation is ultra-low-loss Quartz O dielectric. Metal mounting feet. Shpg. wt., 8 oz.



| Stock No. | Type          | Cap. per Sec. | NET    |
|-----------|---------------|---------------|--------|
| 72-026    | Dual 100 Mmf. |               | \$2.75 |

## ULTRA-MIDGETS

Extremely compact midget condensers for receivers, oscillators, etc. Isolantite end plate mounted directly on panel. Rotor may be insulated from panel. Wt., 8 oz.



| Stock No. | Type         | Cap. per Sec. | NET    |
|-----------|--------------|---------------|--------|
| 72-030    | 15 Mmf. NET  |               | \$0.75 |
| 72-031    | 35 Mmf. NET  |               | 1.20   |
| 72-032    | 50 Mmf. NET  |               | 1.20   |
| 72-033    | 100 Mmf. NET |               | 1.50   |



## PANEL BEARING & EXTENSION

For use with rigid or flexible shaft couplings. Fit panels up to 3/4" thick. Type 25 is panel bearing only. Of cadmium-plated brass.

| Stock No. | Type | Shaft Length | NET |
|-----------|------|--------------|-----|
| 73-275    | 255  | 8"           | 9c  |
| 73-276    | 256  | 3"           | 18c |
| 73-277    | 257  | 6"           | 24c |

# TUNING DIALS • PILOT LIGHTS

## PILOT LIGHT BRACKETS, JEWELS AND SOCKETS

### 1" JEWEL BRACKET



For power-panels, test equipment, etc. Standard bulb, replaceable from front. 1 1/2" long; requires 1 inch mounting hole. Less bulb. Shpg. wt. 5 oz.

| Color | Bayonet | Miniature | Candelabra* |
|-------|---------|-----------|-------------|
| Red   | 52-420  | 52-430    | 52-440      |
| Green | 52-421  | 52-431    | 52-441      |
| Amber | 52-422  | 52-432    | 52-442      |

\*For 115 volt service.

NET EACH. **75c**

52-349, 115 V. bulb for candelabra. Ea. 15c

### 1/2" TYPE—MINIATURE SCREW BRACKET

52-450, Red. 52-452, Amber. **29c**  
52-451, Green. NET EACH.

### 1/2" JEWELLED BRACKETS

Visual indicators for use on power amplifiers, relay racks, etc. Socket takes regular pilot light bulbs. Single hole mounting. Shows when your equipment is "on." With Jewel. 5 oz.

| Miniature Base No. | Bayonet Base No. | Color | NET EACH   |
|--------------------|------------------|-------|------------|
| 52-475             | 52-480           | Red   | <b>19c</b> |
| 52-476             | 52-481           | Green |            |
| 52-477             | 52-482           | Amber |            |

### JEWELS FOR PILOT LIGHTS

Require 1/2" hole. 3/4" threaded shank. 3/4" long.

52-490, Red. 52-492, Amber. **12c**  
52-491, Green. NET EACH.

### 1" 110-VOLT PILOT AND NEON LIGHT ASSEMBLY

Mounts in one inch hole.

\*Use candelabra base, 115 V. bulb. 52-349, 15c

each. 17c. With 1 1/4" neon bulb. 52-807, 30c.

52-800, Red. 52-801, Green. 52-803, Neon. **59c**  
52-802, Amber. NET EACH.

### PILOT LIGHT SOCKETS

Miniature base pilot light sockets with lug connection mountings. Shpg. wt., 4 oz.

52-400, Type A. U-type clip-on mounting.

52-401, Type B. Spade-barbed mounting.

52-402, Type C. Straight clip-on mounting.

52-403, Type D. Bayonet Shell Type.

52-404, Type D. With U clip. **6c**  
10 For 54c. NET EACH.

## GENUINE G.E. MAZDA PILOT LIGHT BULBS

General Electric Mazda pilot light bulbs. Famous for quality. These lamps are made to operate on the voltages indicated. Excellent for all pilot lamp requirements. Will give long dependable service. Buy standard packages of 10 and save money.



| Stock No. | Type | Volts | Amps. | Each | 10 for |
|-----------|------|-------|-------|------|--------|
| 52-305    | 40   | 6-8   | .15   | 9c   | \$0.54 |
| 52-306    | 41   | 2.5   | .50   | 12c  | .54    |
| 52-307    | 42   | 3.2   | .35   | 12c  | .54    |
| 52-308    | 43   | 4.0   | .50   | 9c   | .54    |
| 52-309    | 44   | 6-8   | .25   | 9c   | .54    |
| 52-310    | 45   | 3.2   | .35   | 12c  | .54    |
| 52-311    | 46   | 6-8   | .25   | 9c   | .54    |
| 52-312    | 47   | 6-8   | .15   | 9c   | .54    |
| 52-313    | 48   | 2.0   | .06   | 15c  | .88    |
| 52-314    | 49   | 2.0   | .06   | 15c  | .88    |
| 52-315    | 50   | 6-8   | .20   | 10c  | .59    |
| 52-316    | 51   | 6-8   | 1.0   | 7c   | .41    |
| 52-320    | 55   | 6-8   | 4.0   | 7c   | .41    |

\*Indicates miniature bayonet base.

†Indicates small round bulb.

511, A special 10 watt bulb designed for the RCA-VICTOR R-32. For use on 115 volts. 52-348, 10 For \$1.35. EACH. **15c**

## ICA DIAL PLATES LESS KNOBS

Professional dial plates in silver-gilt satin. Calibrations are in black etched engraving on heavy metal background plates. In three sizes, with 0-100 calibrations. Bakelite fluted finger-grip pointer knobs listed below. Plate ideal for volume controls.



| 180 DEGREES |      |     | 325 DEGREES |        |     |
|-------------|------|-----|-------------|--------|-----|
| No.         | Dia. | NET | No.         | Dia.   | NET |
| 55-120      | 2"   | 43c | 55-128      | 2"     | 43c |
| 55-121      | 3"   | 67c | 55-129      | 3 1/2" | 67c |
| 55-122      | 4"   | 76c | 55-130      | 4"     | 76c |

## ICA FLUTED KNOBS

Molded of high quality black bakelite for 3/4" shaft. Have an attractive, professional appearance. Fluted rim gives positive grip.

Fig. A. Pointer Type

55-085, 1 1/2" NET. 34c

55-086, 1 3/4" NET. 36c

55-087, 2" NET. 54c

Fig. B. Flange Type

55-090, 2 1/4" NET. 43c

55-091, 3" NET. 49c

Fig. C. Less Pointer

55-095, 1 1/2" NET. 27c

55-096, 1 3/4" NET. 28c

55-097, 2" NET. 43c

55-098, 2 1/4" NET. 43c

ICA PRECISION VERNIER DIALS

Handsome chrome-silver dial plates accurately engraved with black numerals and calibrations. Read from 0 to 100 in .80 or .325 degrees. Equipped with finger grip flanged knob. Fit 1/4" shafts. Supplied complete with marker and hardware. Av. shpg. wt. 1 lb.

No. Dia. Degrees NET

55-350 2 1/4" 325 \$1.12

55-351 2 1/4" 180 \$1.12

55-352 2 1/4" 325 \$1.12

55-353 4" 180 \$1.12

DIAL & JACK MARKERS

Fig. A. Tuning and Volume dial markers. Diameter 1 1/4". Bronze finish. Dial plate, graduated 0-100. Volume plate has etched arrow and is not graduated. Fig. B. Jack markers; black with metallic lettering. Hole diameter 7/8". 55-141 is ideal for use with toggle or rotary type switches. Wt. 2 oz.

Fig. A. Tuning. 55-141, Tuning. 55-142, Phono. 55-143, Phono. 55-144, Off-On. 55-145, Off-On. NET EACH. **12c** NET EACH. **9c**

Fig. B. Jack markers. 55-141, Tuning. 55-142, Phono. 55-143, Phono. 55-144, Off-On. 55-145, Off-On. NET EACH. **12c** NET EACH. **9c**

Fig. C. Less Pointer

55-095, 1 1/2" NET. 27c

55-096, 1 3/4" NET. 28c

55-097, 2" NET. 43c

55-098, 2 1/4" NET. 43c

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55-353 4" 180 \$1.12

DIAL & JACK MARKERS

Fig. A. Tuning and Volume dial markers. Diameter 1 1/4". Bronze finish. Dial plate, graduated 0-100. Volume plate has etched arrow and is not graduated. Fig. B. Jack markers; black with metallic lettering. Hole diameter 7/8". 55-141 is ideal for use with toggle or rotary type switches. Wt. 2 oz.

Fig. A. Tuning. 55-141, Tuning. 55-142, Phono. 55-143, Phono. 55-144, Off-On. 55-145, Off-On. NET EACH. **12c** NET EACH. **9c**

Fig. B. Jack markers. 55-141, Tuning. 55-142, Phono. 55-143, Phono. 55-144, Off-On. 55-145, Off-On. NET EACH. **12c** NET EACH. **9c**

Fig. C. Less Pointer

55-095, 1 1/2" NET. 27c

55-096, 1 3/4" NET. 28c

55-097, 2" NET. 43c

55-098, 2 1/4" NET. 43c

## POPULAR MOLDED KNOBS FOR EVERY REQUIREMENT



High-grade durable molded knobs for practically every radio requirement. Fit standard 3/4" shafts. Equipped with set screws. †Has pointer. \*For knurled shafts. Wt., 2 oz.

| Stock No. | Fig. | Diam.  | Color  | Each | 10 For |
|-----------|------|--------|--------|------|--------|
| 55-025    | A    | 1 1/2" | Black  | 6c   | 48c    |
| 55-026    | A    | 1 1/2" | Black  | 6c   | 48c    |
| 55-027    | A    | 1 1/2" | Walnut | 6c   | 48c    |
| 55-028    | A    | 1 1/2" | Walnut | 6c   | 48c    |
| 55-029    | A    | 1 1/2" | Ivory  | 7c   | 56c    |
| 55-035    | B    | 1 1/2" | Black  | 6c   | 48c    |
| 55-036    | B    | 1 1/2" | Walnut | 6c   | 48c    |
| 55-040    | D    | 1 1/2" | Black  | 6c   | 48c    |

## STREAMLINED BAR KNOBS



Modern black or red knobs for test instruments, amplifiers, U.H.F. transmitting and receiving equipment, etc. Pointer clearly marked for accurate reading. Fit 1/4" shafts. Durable molded plastic material. Attractive streamline design. Recessed set screws. Average shipping weight, 4 ounces.

| No.    | Fig. | Size   | Color | Each | 10 for |
|--------|------|--------|-------|------|--------|
| 55-070 | A    | 2"     | Black | 8c   | 64c    |
| 55-071 | A    | 2"     | Red   | 8c   | 72c    |
| 55-072 | A    | 1 1/2" | Black | 7c   | 56c    |
| 55-073 | A    | 1 1/2" | Red   | 7c   | 56c    |
| 55-074 | B    | 1 1/2" | Black | 6c   | 48c    |
| 55-075 | B    | 2 1/4" | Black | 8c   | 64c    |

## 2 SPEED PLANETARY DRIVE



Auxiliary speed reducer. Mounts on condenser, back of panel or on dial-knob shaft. Ratios 5 to 1 and 1 to 1. Fits 3/4" shaft. **\$1.32**  
55-180, NET

55-186, Set of 2 Knobs for above. **12c**

## DELUXE DIAL PLATES

Beautiful black and red finish on light metal background. Size: 1 1/4" x 2 1/4". Mounting hole, 3/4" dia. Wt., 2 oz.

|                |              |                 |                     |                      |                      |                      |                      |                 |                    |                     |                          |                    |
|----------------|--------------|-----------------|---------------------|----------------------|----------------------|----------------------|----------------------|-----------------|--------------------|---------------------|--------------------------|--------------------|
| 55-160, Treble | 55-161, Bass | 55-162, Phono 1 | 55-163, Bass Treble | 55-164, Microphone 1 | 55-165, Microphone 2 | 55-166, Microphone 3 | 55-167, Microphone 4 | 55-168, Phono 2 | 55-169, Dual-Phono | 55-170, Master Gain | 55-171, Microphone-Phono | 55-172, Plain 6-10 |
| 10c            | 10c          | 10c             | 10c                 | 10c                  | 10c                  | 10c                  | 10c                  | 10c             | 10c                | 10c                 | 10c                      | 10c                |

NET EACH **14c**

10 for **\$1.26**

## ICA MINIATURE DIALS

Chrome silver dials with black etched numerals. Have finger grip black knob. Only 1 1/4" diameter. Fit 3/4" shaft. Shpg. wt., 1/2 lb.

55-340, 10.0 in 180°.

55-341, 0-10 in 180°.

270°. EACH **50c**



# RELAYS • DIALS • CRYSTALS

## NATIONAL DIALS



### TYPE R 1 1/4" DIAL

71-070. Neat etched silver dial as used on the "HRO" receivers. Marked 0-10 over 180° clockwise. 1 1/4" diam. For 1/2" shaft. Shpg. wt., 8 oz. **NET. \$1.**



### TYPE O 3 1/2" DIAL

71-082. Attractive circular-grained Nickel Silver dial. 3 1/2" diam. Reqs 0-100 over 180° C.C. Large fitted finger-knob for easy tuning. Fits 1/2" shafts. Wt., 10 oz. **NET. \$9.95.**



### HRK KNOB

Large, full-grip tuning knob for use with receivers, transmitters, etc. 2 1/2" in diameter with fluted edge. Easy to use; non-tiring. Fits 1/2" shafts. Wt., 57g. **NET. \$3.95.**



### ACN DIAL

An excellent instrument dial for production test and laboratory requirements. Uses Velvet Vernier drive unit. With 3 blank removable scales. Holes in pointer for making calibration points. Size: 3 x 1 1/4". Shpg. wt., 1 lb. **NET. \$3.00.**



### GORDON HAND WHEELS

A complete line of tuning control wheels which permit uniform appearance on Xmitting and electronic equipment. Bakelite wheel with pointer; fit all 1/2" shafts. 1" wheel with 270° scale for gain controls. Wt., 8 oz.



### HAND WHEELS ONLY

Same as above, with pointer, less scale.

- 74-520. 3 1/4" Hand Wheel only. **NET. \$1.23**
- 74-501. 2 1/4" Hand Wheel only. **NET. \$1.06**
- 74-502. 1 1/4" Hand Wheel only. **NET. \$1.09**
- 74-503. 1 1/4" Hand Wheel only. **NET. \$1.06**
- 74-510. 1 1/4" Hand Wheel only. **NET. \$1.06**



### MILLEN DIAL

Heavy-gauge nickel silver dial. 0 to 100 Counter-clockwise. Large black bakelite hub includes metal scale from shaft. Overall dia., 1 1/2". Finger-grip type knob. Wt., 1 lb. **NET. \$1.00.**



### MILLEN VOLUME CONTROL LOCKNUT

Locks panel-mounted control in pre-set position. Fits standard 1/2" bushing. 3/8" overall. **NET. \$36.**



### CATHODE RAY TUNING UNIT

An inexpensive visual tuning indicator using Magic Eye tubes, 6E5 or 6C5. Easily installed in any set with AVC not equipped with visual tuning device. Includes mounting brackets, instructions and cable. Loss tube, Wt., 2 lbs. **NET. \$73.**

## HIGH QUALITY RELAYS FOR EVERY PURPOSE



Model B-100. DPDT type break-in relay. Heavy magnets and springs for clean, snap break. Silver contacts. Low current drain. Compact. For 110 volts AC. Size, 2 1/2 x 1 1/2 x 1 1/2". Shpg. wt., 1 lb.

### 75-700. NET. \$5.06

75-701. Model K100. SPST type. Pure silver contacts break clean. Operates from 5 to 16 V. AC or 1 1/2 to 4 V. DC source. Size, 2 1/2 x 1 1/2 x 1 1/2". Shpg. wt., 1 lb. **NET. \$3.70.**

### 75-702. NET. \$1.85

75-703. Model R-100-C. Same as R-100 above, but SPDT type. Size, 2 1/2 x 1 1/2 x 1 1/2". Shpg. wt., 1 lb. **NET. \$2.82.**

### 75-704. NET. \$6.76

Model X-100. Adjustable type overload relay. Can be set to open primary circuit at any current load from 150 to 650 ma. Panel type push-button reset. Size, 4 1/2 x 2 1/2 x 1 1/2". Shpg. wt., 1 lb. **NET. \$6.76.**

### 75-705. NET. \$4.03

Model A-100. Antenna relays insulated with Alsismag 196. Also for heavy duty primary keying or control. Heavy silver contacts handle up to 1 KW in RF circuits up to 28 MC. DPDT type. For 110 V. AC. Size, 2 1/2 x 2 1/2 x 1 1/2". Wt., 1 lb. **NET. \$4.03.**

### 75-706. NET. \$2.82

Model A-100-C. Same as A-100 above, but SPDT type. 2 1/2 x 1 1/2 x 1 1/2". Wt., 1 lb. **NET. \$2.82.**

### 75-707. NET. \$2.82

Model A-100-C. Same as A-100 above, but SPDT type. 2 1/2 x 1 1/2 x 1 1/2". Wt., 1 lb. **NET. \$2.82.**



## BLILEY QUARTZ CRYSTALS

On priority orders we can supply Bliley Crystals for any frequency control application. We shall be glad to quote on your needs.

### FIG. A. STANDARD FREQUENCY

Type 50C 100. A 100 KC crystal for use in primary and secondary standards of frequency. Has temperature coefficient of 3 cyc./m.c./°C. Included under aluminum protecting cover is a correctly designed tank coil. Size: 1 1/2" x 1 1/2" x 1 1/2". 2 1/2" high, including pins. Plugs into standard 5-prong tube socket. Shipping weight, 8 oz. **NET. \$15.50.**

99-211. As above, but calibrated at specified oven temperature. **NET. \$21.00.**

### FIG. B. STANDARD FREQUENCY

Type 50C 100X. A precision X-cut crystal for applications where the accuracy and stability of type 50C 100 unit (above) is not required. Has a frequency (temperature coefficient) of minus 10 cycles/m.c./°C. Size: 1 1/2" x 1 1/2" x 1 1/2". 1 1/2" high, including pins. Plugs into standard 5-prong tube socket. Has no tank coil. Shpg. wt., 8 oz. **NET. \$9.50.**

99-213. Same as 99-212 but calibrated at specified oven temperature. **NET. \$15.00.**

### FIG. C. SMC 100 DUAL FREQUENCY

A 100 and 1000 KC crystal for use in frequency standards. The 1000 KC frequency is correct within .05%. Frequency drift is minus 10 and minus 25 cycles/m.c./°C for the 100 and 1000 KC frequencies. Size, 1 1/2" x 1 1/2" x 1 1/2". **NET. \$7.75.**

## BLILEY CRYSTAL HANDBOOK

A complete handbook on frequency control with quartz crystals. Thirty-five pages explaining theory, use, application and care of quartz crystals. Shpg. wt., 8 oz. **NET. \$10.**

## 73-885. NET. \$10.

## POTTER & BRUMFIELD RELAYS

Ruggedly built power relays for handling any switching requirement where heavy current is present at low frequency. Will safely break 20 amps. in non-inductive circuit. Oversize energizing coil provides powerful pull for fast, positive action. With heavy mounting bracket. For 110 V. AC cycles. 2 1/2 x 2 1/2 x 1 1/2". Mfg. ctrs. 1 1/2". 2 lbs.

### 75-600. Type PRA-1. SPST. \$2.50

Normally open. **NET. \$2.50.**

### 75-601. Type PRA-2. SPST. \$2.50

Normally closed. **NET. \$2.50.**

### 75-602. Type PRA-3. SPDT. \$2.75

Normally open. **NET. \$2.75.**

### 75-603. Type PRA-4. DPST. \$3.60

Normally open. **NET. \$3.60.**

## MIDGET RELAYS

Efficient relays for use in small spaces. Contacts rated 8 A. AC and 4 A. DC. 2 1/2 x 1 1/2 x 1 1/2". Shpg. wt., 1 lb. \*Contacts normally open.

## PLATE CIRCUIT RELAYS

An excellent relay for general plate circuit uses. The 1/2" silver contacts are rated at 6 amps. Size: 2 1/2 x 1 1/2 x 1 1/2". Mounting centers, 2 1/4". Shipping weight, 2 lbs.

### 75-625. Type MRS-291. SPDT. \$1.00

2500 ohm coil. **NET. \$1.00.**

### 75-626. Type MRS-292. SPDT. \$1.15

5000 ohm coil. **NET. \$1.15.**

## ALLIED RELAYS

### TYPE PC

Especially designed for P.E. work. Silver contacts carry 5 amps. of non-reactive A.C. up to 115 volts. All relays are SPDT. Adjustable for pull-in and drop-out regulation, and for contact spacing. Yoke, armature and pole piece are made of Armco electrical iron, cadmium plated. Coils layer-wound and fully impregnated. Size, 2 1/2 x 1 1/2 x 1 1/2". 2 lbs.

77-071. 2,500 ohm coil. Designed for plate circuit of a tube. **NET. \$1.57.**

77-072. With 6 volt AC coil. **NET. \$1.67.**

77-073. With 110 volt AC coil. **NET. \$1.87.**

77-074. With 6 volt DC coil. **NET. \$1.57.**

### TYPE D

For industrial control applications, alarm and signal devices, etc. Layer-wound impregnated coils. Yoke, armature and pole piece of high-grade electrical iron and silicon steel. Contacts handle non-inductive load of 10 amps. at 125 volts A.C. fully encased in porcelain housing. New type of construction eliminates carrying current through actuating brackets. Have insulated metal mounting brackets. All are DPDT type. Size, 2 1/2 x 1 1/2 x 1 1/2". 2 1/2" wide. Shpg. wt., 1 lb.

77-081. D3. 6 V. AC. **NET. \$4.26.**

77-082. D4. 110 V. AC. **NET. \$4.26.**

## ALLIED PHOTO RELAY BOOK

A valuable handbook for the user of photoelectric cells, relays, and associated equipment. Clearly written and well illustrated. Covers theory, installation and servicing. Includes a discussion of light sources and recommended use of cells. Wt., 8 oz. **NET. \$25.**

## 73-766. NET. \$25.

**40 WE ARE HEADQUARTERS FOR ALL REPLACEMENT PARTS**



# SWITCHES—ELECTRICAL ACCESSORIES

## BAT-HANDLE TOGGLE SWITCHES

Underwriters' inspected. Shank  $\frac{3}{4}$ " diameter.  $\frac{1}{4}$ " long; metal base. Nickel-plated finish. Heavy solder lugs. Those marked (\*) rated 3 amps., 250 volts; (†) rated 3 amps., 125 volts. Wt., 6oz.

| No.    | Type      | Each | 10 for |
|--------|-----------|------|--------|
| 34-135 | *S.P.S.T. | 32c  | \$2.88 |
| 34-136 | †S.P.D.T. | 41c  | 3.69   |
| 34-137 | †S.P.S.T. | 50c  | 4.50   |
| 34-138 | †D.P.D.T. | 66c  | 5.94   |

## ROTARY SWITCHES

S.P.S.T. rotary-type canopy switch. Has  $\frac{1}{4}$ " shank, brown bakelite knob and 6" leads. Rated at 1 amp., 250 volts, 6 oz.

34-163, 10 for \$2.61 NET EACH. 29c

## SLIDE LEVER SWITCH

Compact, sturdy constructed Underwriters' Laboratory inspected S.P.S.T. slide-lever switch. Rated .75 amp., 125 volts AC-DC. Has snap-on protective metal cover,  $\frac{1}{4}$ " x  $\frac{1}{4}$ ". Mounting centers,  $1\frac{1}{2}$ ".

34-725, NET. 12c

## HOPAX CIRCUIT-BREAKER PLUG

Positive low-cost protection against equipment damage and fire hazards wherever electrical appliances, motors, etc., are used. Consists of a standard line-plug with built-in circuit-breaker which opens circuit when overload threatens. Resets at the flip of a lever. Underwriters' Lab. inspected. Use plug that matches ampere rating of the particular device to be protected. Shipping wt., 1 lb.

34-730, 1 amp., or  $\frac{1}{4}$  h.p. motor. 34-731, 4 amp., or  $\frac{1}{4}$  h.p. motor. 34-732, 5 amp., or  $\frac{1}{4}$  h.p. motor. 34-733, 6 amp., or  $\frac{1}{4}$  h.p. motor. NET EACH. 73c

## SWITCH POINTS AND STOPS

Heavy nickel plated brass. 6-32 thread.  $\frac{1}{2}$ " long. Supplied with a  $\frac{1}{4}$ " nut.

Switch Points. 44-331, PER DOZ. 9c

Switch Stops. 44-341, PER DOZ. 9c

## HANDY GENERAL-PURPOSE SWITCHES

### SWITCH LOCK

Single-pole, single-throw, 90-degree turn, switch lock. Key withdraws only in locked position when contact is broken. Heavily-plated,  $\frac{1}{4}$ " inch body diameter, 27 thread. With two keys. For automobile radios, amplifiers, portable equipment, etc. Shpg. wt., 8 oz.

34-185, NET. 54c

### G.E. MERCURY SWITCH

Low-cost mercury switch for laboratories, builders, experimenters, etc. Provides quick break; low resistance. Mounts horizontally; 15° movement for positive operation. 7" leads,  $1\frac{1}{2}$ " x  $\frac{1}{2}$ " 4 oz.

34-190, NET. 29c

### FLUSH-MOUNT PUSH-BUTTON

Pearl button is held in  $\frac{1}{4}$ " hole by spring clasp. Wt., 4 oz.

55-195, 10 FOR \$1.17 NET EACH. 13c

## CRL SPECIAL-PURPOSE SWITCHES

### C R L LEVER-ACTION

Low-capacity silver-plated contact points.  $1\frac{1}{2}$ " x  $1\frac{1}{2}$ " x  $\frac{1}{4}$ ". Spring return from either side. Positive action from one side and spring return from the other. Other, positive action in all positions. Use plates below. 4 oz.

| Pos. | Pos. | Shorting | Non-tions | Types | Shorting |
|------|------|----------|-----------|-------|----------|
| 2    | 3    | 1452     | 1454      |       |          |
| 2    | 3    | 1453     | 1455      |       |          |
| 2    | 3†   | 1466     | 1467      |       |          |
| 4    | 2    | 1459     | 1458      |       |          |
| 4    | 2†   | 1456     | 1457      |       |          |

34-020, Specify Type. NET EACH. 59c

### AC SNAP-SWITCHES

Low capacity. Lever action type switches. Use plates below. Underwriters' Laboratory inspected. Rated 1 amp., 250 volts. Have solder lugs. May be ganged with switches listed above. Wt., 4 oz.

34-040, SPST. 1468, NET. 35c

34-041, DPST. 1469, NET. 44c

### PLATES FOR ABOVE

34-050, P1755 1 Switch. 12c

34-051, P1756 2 Switches. 18c

34-052, P1757 3 Switches. 21c

34-053, P1758 4 Switches. 26c

## BAKELITE KNIFE

For panel or base mounting. Heavily plated blades and contacts.

|              |                                    |     |
|--------------|------------------------------------|-----|
| 34-800, SPST | $\frac{1}{2}$ " x $1\frac{1}{4}$ " | 19c |
| 34-801, SPDT | $\frac{1}{2}$ " x $1\frac{1}{4}$ " | 32c |
| 34-802, DPST | $\frac{1}{2}$ " x $1\frac{1}{4}$ " | 38c |
| 34-803, DPDT | $\frac{1}{2}$ " x $1\frac{1}{4}$ " | 40c |

## PORCELAIN KNIFE

Compact midge knife switches. Glazed porcelain base; screw terminals.

|              |                                    |     |
|--------------|------------------------------------|-----|
| 34-820, SPST | $1\frac{1}{2}$ " x $\frac{1}{4}$ " | 13c |
| 34-821, SPDT | $1\frac{1}{2}$ " x $\frac{1}{4}$ " | 16c |
| 34-822, DPST | $1\frac{1}{2}$ " x $\frac{1}{4}$ " | 23c |
| 34-823, DPDT | $1\frac{1}{2}$ " x $\frac{1}{4}$ " | 27c |

## H & H ROTARY SWITCH

Shaded canopy type. Plated;  $\frac{1}{4}$ " bakelite base.  $\frac{1}{4}$ " stem. Has 6" wire leads. Rated 3 amp., at 125 volts.

34-147, 10 FOR \$1.98 NET EACH. 22c

## TRANSMITTER TYPE

New transmitter switches with insulating insulation provide circuit stability and high efficiency. All have four positions, 90° apart, and adjustable stop. Rated 100 watt at 1000 volts DC. Wt., 1 lb.

| Stock No. | Gang | Pos. | NET    |
|-----------|------|------|--------|
| 34-000    | 1    | 1    | \$1.00 |
| 34-001    | 2    | 2    | 1.59   |
| 34-002    | 3    | 3    | 2.29   |
| 34-003    | 4    | 4    | 2.99   |
| 34-004    | 5    | 5    | 3.69   |

34-010, Special Dial Plate. Type K-162, Marked 1 to 4. For above switches. NET. 12c

## STONE SWITCHES

Shorting-type contacts. Rating, 1 amp. at 60 volts. Shaft,  $\frac{1}{4}$ " x  $\frac{1}{2}$ ".

|                                                                       |     |
|-----------------------------------------------------------------------|-----|
| 34-080, Type 1460, SPDT or SPST, $1\frac{1}{2}$ " x $1\frac{1}{4}$ ". |     |
| 34-081, Type 1461, SPST, $1\frac{1}{2}$ " x $1\frac{1}{4}$ ".         | 29c |
| 34-082, Type 1462, DPDT, $1\frac{1}{2}$ " x $1\frac{1}{4}$ ".         | 35c |

## 1450 SWITCH

Use as SPST, SPDT, DPST, DPDT, 3PST, 3PDT, 4PST, 4PDT. Non-shorting type.  $\frac{1}{4}$ " deep,  $\frac{1}{2}$ " x  $\frac{1}{2}$ ". With bar knob.

34-085, 44c

## ACRO SNAP SWITCHES



Frictionless, snap-action switch. Low actuation movement and pressure. One-piece molded, silver contacts, roller spring. Bakelite case. Size:  $1\frac{1}{4}$ " x  $\frac{1}{4}$ " x  $\frac{1}{2}$ ". Rated 2 amps. at 600 V., 3 amp. at 450 V., 5 amp. at 250 V., 10 amp. at 115 V. All are S.P.S.T. except 35-002 and 35-007, 4 oz.

## FIG. A. PIN-PLUNGER TYPE

35-000, Normally open. 98c

35-001, Normally closed. 98c

35-002, SPDT. \$1.18

## FIG. B. LEAF ACTUATOR

35-005, Normally open. \$1.08

35-006, Normally closed. 1.08

35-007, SPDT. 1.27

## TYPE "O" OPEN TYPE

Compact sensitive SPDT open-blade switch. Roller spring construction; operates on very low pressure. Rated 15 amp. AC. 7½ amp. DC. 250 V. AC. Measures:  $3\frac{1}{4}$ " x  $\frac{1}{4}$ " x  $\frac{1}{2}$ ". Supplied with contacts. Shpg. wt., 4oz.

34-720, NET. \$2.06

## PRECISION TYPE MU SWITCHES



Assures precision control of electrical circuits. Dependable. Underwriters' Laboratory inspected. Rated 15 amp., 125 V. AC. 7½ amp. DC. 250 V. AC. All switches are SPDT type. Size:  $1\frac{1}{4}$ " x  $\frac{1}{4}$ " x  $\frac{1}{2}$ ". Mfg. curs. 1". Rated 17 amp. 125 V. DC—8.5 amp., 250 V. DC, low actuation movement.  $2\frac{1}{4}$ " x  $\frac{1}{4}$ " x  $1\frac{1}{4}$ ". Shpg. wt., 4 oz.

## (A) STANDARD MU SWITCHES

| No.       | Type           | Operation | NET   |
|-----------|----------------|-----------|-------|
| 34-700 MB | Pin Plunger    |           | 51.08 |
| 34-701 MB | Leaf Spring    |           | 1.18  |
| 34-702 MB | Leaf & Roller  |           | 1.32  |
| 34-703 MB | Spring Plunger |           | 1.32  |
| 34-710 DX | SPST closed    |           | 3.43  |
| 34-711 DX | SPST open      |           | 3.43  |

## (B) METAL CLAD TYPE

Rated: 17 amp. 125 V. AC; 8.5 amp. 250V. AC. Size:  $3\frac{1}{4}$ " x  $1\frac{1}{4}$ " x  $\frac{1}{2}$ ".

34-704 MBP—Sleeve

34-705 MBP—Plunger

34-706 MBP—Sleeve

34-707 MBP—Plunger

\*Neoprene high dielectric guard

## VALUES IN HANDY ELECTRICAL ACCESSORIES



Fig. A. FRICTION TAPE. Black.  $\frac{3}{4}$ " wide. 52-610, 2 Oz. Roll. 9c

52-611, 4 Oz. Roll. 15c

52-612, 8 Oz. Roll. 21c

52-620, RADID-WIDTH FRICTION TAPE,  $\frac{3}{4}$ " narrow width, made especially for radio work. Eliminates waste and tearing. 65 foot roll. 1 lb. NET. 21c

52-615, SCOTCH TAPE. High insulation value.  $\frac{1}{2}$ " wide. 10 yard rolls. Wt., 1 lb. 29c

52-600, Fig. B. PLUG CAP. Brown bakelite plug with finger-grip. Wires don't pull out. Parallel blade type. Wt., 4 oz. 10 FOR 45c. EACH. 5c

52-601, Fig. C. CUBE TAP. Three connections from one outlet. Sturdy construction of brown bakelite. 4 oz. NET. 8c

52-602, Fig. D. RUBBER HANDLE CAP. Unbreakable soft-rubber plug. Sturdy brass blades. Approved. Wt., 4 oz. 10 FOR 34c. EACH. 6c

52-605, Fig. E. AC TRI-EXTENSION. Bakelite 3-way extension tap. Steel-plated back. With 6 ft. rubber cord and plug cap. Underwriters' approved. Wt., 1 lb. NET. 24c

47-820, Fig. F. BELDEN EXTENSION CORD. 10-foot unbreakable, brown, all-rubber extension cord, with rubber cap and double outlet tap. Famous Belden quality, built for long-life service. Underwriters' approved. Wt., 1 lb. NET. 51c

Fig. G. EAGLE INDICATING FUSES. Show "OK" in window when fuse is good. "OK" vanishes when fuse blows. Five of one type per box. Shpg. wt., 1 lb. 52-170, 10 Amp. 52-173, 25 Amp. 52-171, 15 Amp. 52-174, 30 Amp. 52-175, 40 Amp. 20c

87-900, Fig. H. CLAMP LAMP. Rubber-covered clamp fastens to chassis or cabinet. 5½" dia. shade. With switch, inc. bulb. 2 lb. NET. 95c

# METAL CABINETS AND CHASSIS

## ICA HINGED COVER STEEL CABINETS



A new ultra-modern streamlined cabinet. Beautifully designed to meet the most discriminating taste in this type of equipment. The cabinet has rounded corners with specially designed ventilating louvers on sides allowing free circulation of air and dissipation of heat. The front panel is removable and fits flush with front of cabinet. The panel door provided on top of case hangs on a full-sized piano hinge. Modern hinged covers are provided on the back panel which also has an opening on the bottom to allow for leads, cable connections, etc. Bottom has four embossed feet. Cabinets are available in 4 convenient sizes. Finished in a beautiful grey ripple enamel. The deluxe cabinet is like the standard model except for bright trim. Especially designed chassis bases to fit the ICA hinged cover and sloping panel cabinets are listed at right. These chassis bases are of one piece metal construction with an attractive black ripple finish. All chassis are drilled for bottom plates.

bottom to allow for leads, cable connections, etc. Bottom has four embossed feet. Cabinets are available in 4 convenient sizes. Finished in a beautiful grey ripple enamel. The deluxe cabinet is like the standard model except for bright trim. Especially designed chassis bases to fit the ICA hinged cover and sloping panel cabinets are listed at right. These chassis bases are of one piece metal construction with an attractive black ripple finish. All chassis are drilled for bottom plates.

## ICA DELUXE SLOPING PANEL CABINETS

The top corners of this all-purpose cabinet are rounded and trimmed with red striped metal. Sides have "Air Gate" type ventilators. The rear has louvre ventilators with openings at the bottom. Eye level controls can be installed. Front panel is removable so that the chassis can be attached to it and used as one unit. Cabinets and chassis are made of heavy gauge metal. In four sizes with chassis to fit each unit as listed below. Finished in grey ripple. Chassis is black ripple enamel, folded over on bottom and drilled to take bottom plates. Cabinets are supplied less chassis bases but with bottom plates.

| Stock No. | Size H.W.D. | Shp. Wt. | NET EACH |
|-----------|-------------|----------|----------|
| 86-320    | 8x 8x 8"    | 9 lbs.   | \$3.88   |
| 86-321    | 8x10x 8"    | 10 lbs.  | 4.26     |
| 86-322    | 8x14x 8"    | 11 lbs.  | 5.14     |
| 86-323    | 12x18x12"   | 17 lbs.  | 7.50     |

## CHASSIS BASES FOR ICA CABINETS

| Deluxe    |        |             |            | Standard |           |        |          |
|-----------|--------|-------------|------------|----------|-----------|--------|----------|
| Stock No. | NET    | Size H.W.D. | Panel Size | Shp. Wt. | Stock No. | NET    | Shp. Wt. |
| 86-300    | \$4.26 | 8x10x 8"    | 8 x 8"     | 9 lbs.   | 86-310    | \$2.65 | 2 lbs.   |
| 86-301    | 4.41   | 8x12x 8"    | 8x10"      | 10 lbs.  | 86-311    | 3.09   | 2 lbs.   |
| 86-302    | 5.29   | 8x14x 8"    | 8x12"      | 11 lbs.  | 86-312    | 3.88   | 3 lbs.   |
| 86-303    | 6.23   | 12x20x12"   | 12x18"     | 17 lbs.  | 86-313    | 7.06   | 12 lb.   |

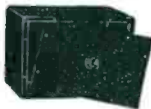
## HINGED-TOP METAL CABINETS



Sturdy metal cabinets with piano-hinged lids. Front panel, back panel or bottom can be removed without disturbing the rest of the cabinet. Supplied in knock-down form. Easy to assemble. Finished in black ripple enamel.

| Stock No. | Size H.W.D. | Shp. Wt.    | NET EACH |
|-----------|-------------|-------------|----------|
| 86-340    | 6x 9x 5"    | 6 lbs.      | \$2.35   |
| 86-341    | 7x10x 8"    | 7 lbs.      | 2.94     |
| 86-343    | 7x12x 8"    | 9 lbs.      | 3.52     |
| 86-344    | 8x12x11"    | 10 1/2 lbs. | 4.03     |
| 86-345    | 7x14x 8"    | 11 lbs.     | 3.59     |
| 86-346    | 9x18x12"    | 15 lbs.     | 5.06     |

## UTILITY METAL CABINETS



Cabinets for various uses such as housing input stages, mixers, transceivers, amplifiers, monitors, etc. Front and back removable and fastened to cabinet with self-tapping machine screws. Cabinets are shipped knocked-down. Easily assembled. Have durable black ripple enamel finish.

| Stock No. | Size H.W.D. | Shp. Wt. | NET EACH |
|-----------|-------------|----------|----------|
| 86-350    | 4x 4x 2"    | 1 lb.    | \$0.76   |
| 86-351    | 5x 4x 3"    | 2 lbs.   | .82      |
| 86-352    | 6x 6x 6"    | 3 lbs.   | .91      |
| 86-353    | 6x 6x 6"    | 3 lbs.   | 1.47     |
| 86-354    | 7x10x 8"    | 5 lbs.   | 1.85     |
| 86-355    | 10x10x 8"   | 6 lbs.   | 2.26     |
| 86-356    | 12x12x11"   | 8 lbs.   | 2.44     |

## CHROME HANDLES



A handy and useful addition to any cabinet, amplifier, transmitter etc. Chrome finished (with red stripes added to 5/16" size). With mfg. screws. 4-2-520, 4" Handle. NET EACH... 35c

## GRILL CLOTH



Black and gold interlock. 43-601, 12x12". NET 18c  
43-602, 12x24". NET 29c  
43-603, 24x24". NET 55c  
43-623, Walco Non-Permeating Cloth & Fabric Cement. Per Tube, NET... 25c

## BULB COLORING KIT



Kit contains one bottle each: Green, Blue, Red, Brown, with bottle of solvent. Bulbs may be colored by dipping in bottle. 43-110, NET... 29c

## AMPLIFIER FOUNDATION UNITS



Clever design and styling are incorporated in these amplifier foundation units available at amazingly low prices. Top covers have rounded corners, and fronts are embellished with polished "Air Gate" ventilators. Additional ventilation is obtained through the raised screen openings on the top as well as louvers on both sides and back. The unit is very simple to assemble. All parts are perfectly fitted. Red striped mouldings and handles give additional beauty to the appearance of the unit. In five convenient sizes. Finished in Maroon grey ripple enamel.

| Stock No. | Case Size H.W.D. | Chas. Wt. | Shp. Wt. | NET EACH |
|-----------|------------------|-----------|----------|----------|
| 86-370    | 9x10x 5 1/2"     | 3"        | 9 lbs.   | \$3.62   |
| 86-371    | 9x12x 8"         | 3"        | 10 lbs.  | 4.70     |
| 86-372    | 9x17x 7"         | 3"        | 11 lbs.  | 4.85     |
| 86-373    | 9x14x10"         | 3"        | 11 lbs.  | 5.29     |
| 86-374    | 9x17x10"         | 3"        | 14 lbs.  | 5.59     |

## STURDY SLOPING-PANEL METAL UTILITY CABINETS



Professional type sloping-panel metal cabinets, ruggedly built, small and compact in design, and very attractive in appearance. Ideal for use as speaker cabinets, oscillator cases, receivers, amplifiers, etc. Have rounded corners. Finished in marine grey ripple enamel.

| Stock No. | Overall Size H.W.D.     | Wt.    | NET    |
|-----------|-------------------------|--------|--------|
| 86-380    | 4 1/2 x 11 1/2 x 7 1/2" | 5 lbs. | \$1.26 |
| 86-381    | 4 1/2 x 11 1/2 x 7 1/2" | 5 lbs. | 2.26   |

## ICA DELUXE METER CASES

Designed to harmonize with the trend in modern streamlined equipment. Finished in marine-grey ripple enamel trimmed with beautiful red striped metal band. Has neat rounded top. Available for 2" or 3" meters. Ideal for mid-range speaker case for intercoms. Shipping weight, 2 lbs.



| Stock No. | H.W.D.                 | Opening | EACH   |
|-----------|------------------------|---------|--------|
| 86-390    | 1 1/2 x 4 1/2 x 4 1/2" | 2 3/8"  | \$1.32 |
| 86-391    | 1 1/2 x 4 1/2 x 4 1/2" | 2 3/8"  | 1.32   |

## PORTABLE STEEL CABINET

Ideal for housing oscillators, transceivers, test equipment, etc. Both front and back panels are removable and are held in place with self-tapping screws which are supplied. Entire cabinet is very sturdily built of metal; has reinforced corners and edges. Supplied with a convenient leather carrying handle. The perfect housing for home-built portable equipment. Chassis listed below suitable for both sizes of cabinets. Finished in black ripple enamel.



| Stock No. | H.W.D.        | Wt.     | NET    |
|-----------|---------------|---------|--------|
| 86-395    | 12x7 1/2 x 7" | 9 lbs.  | \$2.26 |
| 86-296    | 15x7 1/2 x 7" | 11 lbs. | 2.65   |

86-397, Chassis for above. 7 1/2 x 6 1/2 x 2 1/2". Shpg. wt., 3 lbs. NET... 44c

## METAL SPEAKER CABINETS

Designed to conform with streamlined appearance of all modern equipment. Metal grille firmly attached, will not rattle, and provides excellent protection for speaker cone. Has convenient metal carrying handle on top. Finished in black-ripple enamel. Available for 6" to 12" speakers.



| Stock No. | Spkr. Size | Size H.W.D. | Shp. Wt. | NET EACH |
|-----------|------------|-------------|----------|----------|
| 86-360    | 6"         | 10x10x6"    | 8        | \$3.00   |
| 86-361    | 8"         | 12x12x7"    | 9        | 3.59     |
| 86-362    | 10"        | 14x14x8"    | 15       | 4.70     |
| 86-363    | 12"        | 16x16x8"    | 20       | 6.31     |

## WRINKLE VARNISH

An attractive, modern wrinkle finish for all metal chassis panels, etc. Air drying; easily applied with brush or spray. In six popular colors. Weights: 1/4 pt., 10 oz., 1 pt., 1 1/2 lbs.



| 1/4 Pint | COLOR       | 1 Pint |
|----------|-------------|--------|
| 43-000   | Black       | 43-010 |
| 43-001   | Brown       | 43-011 |
| 43-002   | Green       | 43-012 |
| 43-003   | Silver Grey | 43-013 |
| 43-004   | Red         | 43-014 |
| 43-005   | Blue        | 43-015 |

1/4 Pint. Each... 24c Per Pint... \$1.18

## CRYSTALLINE LACQUER

Covers metal, wood or other material. Dries in 20 minutes. Easy to apply. Will give metal products a professional look. In three colors.

| Color | 1/4 Pint | 1/2 Pint | 1 Pint |
|-------|----------|----------|--------|
| Black | 43-020   | 43-030   | 43-040 |
| Grey  | 43-021   | 43-031   | 43-041 |
| Brown | 43-022   | 43-032   | 43-042 |

1/4 Pint. Specify Color. Wt., 1/4 lb. NET... 21c  
1/2 Pint. Specify Color. Wt., 1/2 lb. NET... 41c  
1 Pint. Specify Color. Wt., 1 1/2 lbs. NET... \$1.18



# RADIO-BUILDERS' SUPPLIES

## CHASSIS BASES

Folded on four sides. Those starred (\*) have open ends. Material shortages may make it necessary to supply alternative plating or finish.

**43-620.** Volume Control Bracket drilled and formed. **NET.....6c**

| Size, inches          | Template |        | Wrinkle Finish |        | Shp. Wt. |
|-----------------------|----------|--------|----------------|--------|----------|
|                       | No.      | NET    | No.            | NET    |          |
| 4 1/4 x 8 1/2 x 1 1/2 | 86-500   | \$0.48 |                |        | 2 lbs.   |
| 6 x 9 1/2 x 1 1/2     | 86-501   | .48    | 86-551         | \$0.59 | 2 lbs.   |
| 6 x 9 1/2 x 1 1/2     | 86-502   | .56    | 86-552         | .63    | 2 lbs.   |
| 6 1/2 x 10 1/2        | 86-503   | .56    | 86-553         | .63    | 2 lbs.   |
| 5 x 13 1/2            | 86-504   | .65    | 86-554         | .80    | 2 lbs.   |
| 7 x 12                | 86-505   | .55    | 86-555         | .63    | 2 lbs.   |
| 7 x 12                | 86-506   | .58    | 86-556         | .69    | 2 lbs.   |
| 7 x 12 1/2            | 86-507   | .62    | 86-557         | .72    | 3 lbs.   |
| 7 x 12 1/2            | 86-508   | .67    | 86-558         | .79    | 3 lbs.   |
| 7 x 12 1/2            | 86-509   | .69    | 86-559         | .85    | 3 lbs.   |
| 7 x 12 1/2            | 86-510   | .71    | 86-560         | .94    | 3 lbs.   |
| 7 x 23 1/2            | 86-511   | .82    | 86-561         | 1.03   | 4 lbs.   |
| 8 x 12                | 86-512   | .76    | 86-562         | 1.03   | 4 lbs.   |
| 10 x 12 1/2           | 86-513   | .86    | 86-563         | 1.25   | 5 lbs.   |
| 10 x 12 1/2           | 86-514   | .86    | 86-564         | 1.25   | 5 lbs.   |
| 10 x 14 1/2           | 86-515   | .92    | 86-565         | 1.25   | 5 lbs.   |
| 10 x 17 1/2           | 86-516   | .98    | 86-566         | 1.25   | 5 lbs.   |
| 10 x 20 1/2           | 86-517   | 1.00   | 86-567         | 1.25   | 6 lbs.   |
| 13 x 17 1/2           | 86-518   | 1.02   | 86-568         | 1.25   | 6 lbs.   |
| 13 x 17 1/2           | 86-519   | 1.00   | 86-569         | 1.25   | 6 lbs.   |
| 10 x 17 1/2           | 86-520   | 1.00   | 86-570         | 1.25   | 6 lbs.   |
| 13 x 17 1/2           | 86-521   | 1.10   | 86-571         | 1.25   | 6 lbs.   |

## RADIO PANELS

A complete line of Masonite and steel panels for all radio and electronic purposes. Wrinkle finish panels are of 1/4" steel, with black wrinkle enamel finish.

1/4" Masonite panels in natural black; 1/4" Masonite panels finished in baked black ripple. Only types and sizes shown below are available.

| Size In. | Wrinkle Finish |        | 1/4" Masonite | No.    | NET | 1/4" Masonite | No.    | NET | Shp. Wt. |
|----------|----------------|--------|---------------|--------|-----|---------------|--------|-----|----------|
|          | No.            | NET    |               |        |     |               |        |     |          |
| 7 x 10   | 86-740         | \$0.38 | 86-750        | \$0.26 |     | 86-770        | \$0.38 |     | 1 lb.    |
| 7 x 12   | 86-741         | .43    | 86-751        | .30    |     | 86-771        | .42    |     | 1 lb.    |
| 7 x 14   | 86-742         | .43    | 86-752        | .30    |     | 86-772        | .42    |     | 1 lb.    |
| 7 x 18   | 86-744         | .69    | 86-754        | .43    |     | 86-774        | .65    |     | 2 lbs.   |
| 7 x 21   | 86-745         | .86    | 86-755        | .48    |     | 86-775        | .68    |     | 3 lbs.   |
| 8 x 18   | 86-747         | .69    | 86-757        | .47    |     | 86-777        | .70    |     | 3 lbs.   |
| 9 x 15   | 86-748         | .66    | 86-758        | .46    |     |               |        |     | 2 lbs.   |

## STEEL RELAY RACK PANELS

For cabinets and racks having standard Amateur spacings in 1 1/4" multiples. All steel construction; notched; 1/4" thick, 19" wide.

| Black  | Grey   | Size   | Wt.     | EACH   | Black  | Grey   | Size   | Wt.     | E.A.   |
|--------|--------|--------|---------|--------|--------|--------|--------|---------|--------|
| 86-100 | 86-110 | 1 1/4" | 5 lbs.  | \$0.48 | 86-106 | 86-116 | 1 1/4" | 12 lbs. | \$1.32 |
| 86-101 | 86-111 | 1 1/4" | 5 lbs.  | .54    | 86-107 | 86-117 | 1 1/4" | 13 lbs. | 1.50   |
| 86-102 | 86-112 | 1 1/4" | 7 lbs.  | .69    | 86-108 | 86-118 | 1 1/4" | 14 lbs. | 1.68   |
| 86-103 | 86-113 | 1 1/4" | 8 lbs.  | .75    | 86-109 | 86-119 | 1 1/4" | 15 lbs. | 1.89   |
| 86-104 | 86-114 | 1 1/4" | 9 lbs.  | .81    | 86-110 | 86-120 | 1 1/4" | 16 lbs. | 2.01   |
| 86-105 | 86-115 | 1 1/4" | 10 lbs. | 1.11   | 86-111 | 86-121 | 1 1/4" | 17 lbs. | 2.28   |

## RELAY RACKS

Expressly designed for professional-looking transmitter or public address system installations. Substantially built of 1/4" pressed steel with spot-welded corners for extra heavy-duty service. Sturdy construction assures maximum rigidity and keeps all units in perfect alignment. Will accommodate all 19-inch rack panels with either W. E. or Amateur slotting. Holes are tapped for 10-32" machine screws. **38-148** has heavy-wrought steel base, 19" deep, 20" wide. **38-841** has same type base, but 22" deep, 20" wide. Furnished in black-ripple finish. Shipped in knock-down form, complete with necessary nuts and bolts for easy assembly and an ample supply of standard mounting screws and cup washers.

| Stock No. | Panel Space | Overall Height | Shp. Wt. | NET EACH |
|-----------|-------------|----------------|----------|----------|
| 38-840    | 36 1/4"     | 38 1/4"        | 57 lbs.  | \$10.50  |
| 38-841    | 71 1/4"     | 73 1/4"        | 85 lbs.  | 12.90    |

## STANDARD TABLE

### CABINETS

Made of 1/4" steel. Ventilation louvers on sides and back. Drilled for standard 19" rack panels. **38-830**, **38-831** with hinged doors on top; others with doors on top and rear. Take chassis up to 17 x 13". Black-ripple finish only.

| Stock No. | Panel Space   | H       | W       | D       | Shp. Wt. | NET EACH |
|-----------|---------------|---------|---------|---------|----------|----------|
| 38-830    | 8 1/2" x 10"  | 8 1/2"  | 19 1/2" | 22 1/2" | 5.45     |          |
| 38-831    | 10 1/2" x 10" | 10 1/2" | 19 1/2" | 27 1/2" | 6.19     |          |
| 38-832    | 12 1/2" x 10" | 12 1/2" | 19 1/2" | 36 lbs. | 9.60     |          |
| 38-833    | 14 1/2" x 10" | 14 1/2" | 19 1/2" | 47 lbs. | 10.50    |          |
| 38-834    | 16 1/2" x 10" | 16 1/2" | 19 1/2" | 55 lbs. | 12.30    |          |

## DIAL SPRINGS

Rustproof, high-grade steel wire dial-drive springs. Constructed to give exceptional service. In an assortment of 10 of five sizes for any replacement job. Essential for every service shop. Shpg. wt., 8 oz. **24c**

## SPAGHETTI TUBING

Heavily varnished flexible tubing with 5,000 volt average dielectric strength. Accommodates wire sizes up to No. 10. Wound on handy spools in 20-foot lengths only. Shpg. wt., 1 lb.

|         |            |     |
|---------|------------|-----|
| 49-240. | Black. NET |     |
| 49-241. | Red. EACH  | 73c |

## GRID CAPS, GRID SHIELDS, PLATE CAPS

A complete line of caps for all receiving type and amateur transmitting type tubes.



| Type | For Use With                                        | Ea. No. | NET | Doz. No. | NET    |
|------|-----------------------------------------------------|---------|-----|----------|--------|
| A    | Standard large cap, glass-type receiving tubes      | 42-035  | 2c  | 42-038   | \$0.14 |
| B    | Small cap, metal, loktal, octal, G-1 & bantam tubes | 42-036  | 12c | 42-037   | .14    |
| C    | All receiving tubes. Insulated. 15" lead.           | 42-061  | 15c |          |        |
| D    | Glass tubes. Red composition insulated. 12" lead.   | 42-019  | 14c |          |        |
| D    | Glass tubes. Black composition ins. 12" lead.       | 42-020  | 14c |          |        |
| D    | Transmitting tubes. Same as 42-019, above.          | 42-029  | 27c |          |        |
| D    | Transmitting tube. Same as 42-020, above.           | 42-030  | 27c |          |        |
| D    | Glass tubes. Soft-rubber insulated. 12" lead.       | 42-052  | 9c  |          |        |
| D    | Met. tubes. Soft-rubber insulated. 12" lead.        | 42-053  | 9c  |          |        |
| D    | Transmitting tubes. Rubber ins. 12" lead.           | 42-054  | 15c |          |        |
| D    | Transmitting tubes. Rubber ins. 12" lead.           | 42-055  | 15c |          |        |
| F    | Met. tube grid shield. Slot for grid lead.          | 42-595  | 9c  | 42-596   | .97    |
| F    | Transmitting tubes. 1/4" cap. National Type SPG     | 71-246  | 24c |          |        |
| G    | Standard tubes. 1/4" dia. cap. National Type 24     | 71-243  | 3c  |          |        |
| G    | Octal tubes. 1/4" dia. cap. National Type 8         | 71-244  | 3c  |          |        |
| G    | Transmitting tubes. 1/4" dia. National Type 12      | 71-245  | 6c  |          |        |
| H    | Large transmitting tubes. Millen Type 36001         | 72-068  | 21c |          |        |
| H    | Small transmitting tubes. Millen Type 36002         | 72-069  | 21c |          |        |

## ALL-PURPOSE METAL TUBE SHIELDS

Positive-fitting metal tube shields. Replace difficult-to-install metal-type tubes by merely selecting "GT" equivalent tubes and appropriate shield covers listed below. \*Open top type shield. \*\*Closed top type shield. †Ground clip only. ‡With cap and ground clip. For tall battery-type tubes. ††For ST12 type tubes. †††For ST14 dome-shaped type tubes. \*\*For old S14 rounded top type tubes. 8 oz.

| No.    | Fig. | For Use With    | EACH 10 for | No.    | Fig. | For Use With      | EACH 10 for |
|--------|------|-----------------|-------------|--------|------|-------------------|-------------|
| 42-570 | A    | *Large GT Tubes | 3c          | 42-552 | C    | ††9 Style tubes.  | 5c \$0.45   |
| 42-571 | A    | *Large GT Tubes | 3c          | 42-553 | D    | ††10 Style tubes. | 5c .54      |
| 42-572 | A    | *Small GT/G     | 3c          | 42-530 | D    | ††7, 7.35, etc.   | 6c .54      |
| 42-573 | A    | *Small GT/G     | 3c          | 42-531 | D    | ††7.35, etc.      | 6c .54      |
| 42-574 | A    | *Loktal tubes   | 3c \$6.24   | 42-532 | D    | ††5.6, 6D6, etc.  | 6c .54      |
| 42-575 | A    | *All GT Tubes   | 3c .88      | 42-533 | D    | ††2.3, etc.       | 6c .54      |
| 42-551 | A    | *Bakelite base  | 1c .88      | 42-534 | D    | ††3.0, 01A, etc.  | 6c .54      |

## BAKELITE TUBING

High-grade bakelite tubing. Wall 1/4-inch thick. Excellent for coils, etc.

| Size<br>O. D. | Per 6' Length |     | 1 Foot Length |        |
|---------------|---------------|-----|---------------|--------|
|               | Stock No.     | NET | Stock No.     | NET    |
| 1"            | 43-501        | 25c | 43-502        | 46c    |
| 1 1/4"        | 43-511        | 33c | 43-512        | 60c    |
| 2"            | 43-521        | 39c | 43-522        | 72c    |
| 2 1/4"        | 43-531        | 45c | 43-532        | 85c    |
| 3"            | 43-541        | 52c | 43-542        | 98c    |
| 3 1/4"        | 43-551        | 59c | 43-552        | \$1.10 |

## FENOLINE TUBING

Small diameter Fenoline tubing of finest quality. Black smooth polished finish. Moisture-proof. Easy to cut. 1/4" walls.

| Stock No. | Outside Dia. | Per Ft. |
|-----------|--------------|---------|
| 43-560    | 1/4"         | 57c     |
| 43-570    | 1/2"         | 80c     |

## AMPHENOL "912-B" STRIPS

For coil supports, condenser insulating bars, open-wire feed line spreaders, etc. All strips are 12" long; easy to cut. Avg. shpg. wt., 6 oz.

| Stock No. | Size          | NET    |
|-----------|---------------|--------|
| 71-715    | 1/4" x 1/2"   | \$0.16 |
| 71-716    | 1/4" x 3/4"   | .25    |
| 71-717    | 1/4" x 1"     | .30    |
| 71-718    | 1/4" x 1 1/4" | .30    |
| 71-719    | 1/4" x 1 1/2" | .30    |
| 71-720    | 1/4" x 1 3/4" | .64    |
| 71-721    | 1/4" x 2"     | .80    |
| 71-722    | 1/4" x 2 1/4" | 1.03   |

## "912-B" RIBBON

.001" thick. 3/4" wide. For wrapping cable joints, splices, and exposed voltage points. Welds together with cement listed below. Ribbon wt. 4 oz.; cement 10 ft. **29c**

71-733. PER 100 FT. ROLL. **29c**

71-735. Cement, 2 oz. bottle. **29c**

# ALL-PURPOSE TUBE SOCKETS

**AMPHENOL**

## QUALITY SOCKETS

Used in test instruments, amplifiers a quality receivers. Molded black bakelite, with tight gripping contact



RS



MIP

## REPLACEMENT SOCKETS

**Type RS.** Molded high-dielectric bakelite. Removable adapter plate permits replacement of any wafer socket. \*Low-loss. Mfg. centers 1½ to 1¾". Shpg. wt., 4 oz.

| No.    | Type   | Prong  | EACH |
|--------|--------|--------|------|
| 40-004 | RS4    | 4      | 2c   |
| 40-005 | RS5    | 5      | 2c   |
| 40-006 | RS6    | 6      | 2c   |
| 40-007 | RS7S   | 7S     | 2c   |
| 40-009 | RS7L   | 7L     | 7c   |
| 40-011 | RS7C   | 7S-7L  | 9c   |
| 40-008 | RS8    | Octal  | 11c  |
| 40-010 | RS8L   | Loktal | 11c  |
| 40-040 | RS8LT* | Loktal | 9    |
| 40-012 | RS9    | 9      | 11c  |

## "MIP" SOCKETS

Bakelite body on steel plate, 1½" mtg. centers on all except 48-030 which has 1¾" ctrs. \*UHF type. Haspolystyrene body Shpg. wt. 4oz.

| No.    | Type   | Prong  | EACH |
|--------|--------|--------|------|
| 40-024 | MIP4   | 4      | 6c   |
| 40-025 | MIP5   | 5      | 6c   |
| 40-026 | MIP6   | 6      | 6c   |
| 40-027 | MIP7S  | 7S     | 7c   |
| 40-029 | MIP7L  | 7L     | 7c   |
| 40-028 | MIP8   | Octal  | 7c   |
| 40-030 | 88-88  | Loktal | 10c  |
| 40-032 | MIP9   | 9      | 9c   |
| 40-033 | MIP11  | 11     | 12c  |
| 40-038 | 54-8"  | Octal  | 24c  |
| 40-045 | 54-8L" | Loktal | 26c  |

## OAK TYPE WAFER SUB-PANEL SOCKETS

High grade wafer type sub-panel tube sockets of laminated bakelite construction. Sturdy and reliable with fully insulated top. Contacts are full-floating type, self-aligning, and of one piece construction for low resistance connection; make side-wiring contact with tube prongs. Center rivet securely holds laminations together. Order a supply for general replacements. Shpg. wt., 3 oz.



TOP VIEW



BOTTOM VIEW

## STANDARD SIZE 1½" Mounting Centers

| No.    | Prong | EACH | 10 FOR |
|--------|-------|------|--------|
| 40-204 | 4     |      |        |
| 40-205 | 5     |      |        |
| 40-206 | 6     | 5c   | 45c    |
| 40-209 | 7L    |      |        |
| 40-207 | 7S    |      |        |
| 40-208 | 8     |      |        |

## MIDGET SIZE 1¼" Mounting Centers

| No.    | Prong  | EACH | 10 FOR |
|--------|--------|------|--------|
| 40-224 | 4      |      |        |
| 40-225 | 5      |      |        |
| 40-226 | 6      | 5c   | 45c    |
| 40-229 | 7L     |      |        |
| 40-227 | 7S     |      |        |
| 40-228 | 8      |      |        |
| 40-230 | Loktal |      |        |

**40-240 "Button" Type Wafer Socket** for all miniature 7-contact tubes: 1R5, 1S4, 1S5, 1T4. ¾" mtg. ctrs. **5c**

## ABOVE CHASSIS SOCKETS



One-piece black bakelite construction. Sturdy contact guides, 1¼" mounting centers. Molded contact designations. Wt., 6 oz. ea.

| Stock No. | Prong   | EACH |
|-----------|---------|------|
| 40-254    | 4       | 24c  |
| 40-255    | 5       | 26c  |
| 40-256    | 6       | 29c  |
| 40-261    | 7L & 7S |      |
| 40-258    | 8 Octal |      |

## NATIONAL SOCKETS



### TYPE CIR

Low-loss Isolantite socket. Two metal standoff and six-position metal flange are supplied for universal mounting. Ideal for low-loss receiver and transmitter circuits. Shipping weight, 4 oz.

| No.    | Prong | No.    | Prong   |
|--------|-------|--------|---------|
| 71-100 | 4     | 71-103 | 7 L     |
| 71-101 | 5     | 71-104 | 7 S     |
| 71-102 | 6     | 71-105 | 8 Octal |

**NET EACH... 27c**

## BASE-MOUNT SOCKETS



Bakelite socket for panel or baseboard. Rugged contacts, 1½" diameter. With posts or lugs. Wt. 6oz.

| Stock No. | Prong     | EACH      |
|-----------|-----------|-----------|
| 40-304    | 4         |           |
| 40-305    | 5         |           |
| 40-306    | 6         | 21c       |
| 40-309    | 7L        |           |
| 40-307    | 7S        |           |
| 40-308    | 8 (Octal) | EACH. 44c |

## HAMMARLUND SOCKETS



## ISOLANTITE TYPE

Low-loss Isolantite sockets with glazed top and sides. Ideal for high frequency applications. Constant resistivity and positive side-gripping contacts eliminate noise. Corrosion proof. Subpanel or base mount. 1½" mtg. ctrs. Wt., 4 oz.

| No.    | Prong           | NET |
|--------|-----------------|-----|
| 72-320 | 4 prong         | 36c |
| 72-321 | 5 prong         | 39c |
| 72-322 | 6 prong         | 42c |
| 72-323 | 7 prong (Med.)  | 45c |
| 72-324 | 7 prong (Small) | 45c |
| 72-325 | 8 prong (Octal) | 48c |

## UHS-900X ACORN

Locks tube in place for mounting in any position. Has silver-plated beryllium contacts; "Iso-Q" super Isolantite metal base, grounding plate for complete shielding. 1½" diameter; 1½" mounting centers. Shpg. wt. 4 oz.



**72-336 NET 90c**

## JOHNSON SOCKETS

**73-190. UX BASE.** For use with Triodes. Five contact clips on round Isolantite base. Shipping weight, 3 oz.  
**73-120. NET... 99c**  
**Type XMA.** For Pentodes. Has square copper base; all contacts by-passed.  
**73-121. NET... \$1.32**



**73-191. 50 Watt socket.** Porcelain base with heavy dual phosphor-bronze contact springs. Shpg. wt. 2 lbs.  
**NET 73c**

## CHASSIS TYPE

Bakelite. With retaining ring. 1½" dia. Shpg. wt., 3 oz.

| No.         | Type | Prong  |
|-------------|------|--------|
| 40-054      | S4   | 4      |
| 40-055      | S5   | 5      |
| 40-056      | S6   | 6      |
| 40-057      | S7S  | 7S     |
| 40-059      | S7L  | 7L     |
| NET EACH... |      | 6½c    |
| 40-061      | S7C  | 7S-7L  |
| 40-058      | S8   | Octal  |
| NET EACH... |      | 8c     |
| 40-062      | S9   | 9      |
| 40-060      | 788L | Loktal |
| NET EACH... |      | 10c    |

## STEATITE

Ultra-low-loss. Contacts are separated by raised barriers. Universal type mounting plate. For short wave transmitters, etc. Mtg. ctrs. 1½ to 1¾". 5 oz.

| No.         | Type  | Prong |
|-------------|-------|-------|
| 40-074      | RSS4  | 4     |
| 40-075      | RSS5  | 5     |
| 40-076      | RSS6  | 6     |
| 40-077      | RSS7S | 7S    |
| 40-078      | RSS8  | Octal |
| NET EACH... |       | 24c   |
| 40-079      | RSSL7 | 7L    |
| NET...      |       | 29c   |

## TOP CHASSIS

Metal shell holds socket 1½" above panel, and shields connections. 6 oz.

| No.         | Type  | Prong |
|-------------|-------|-------|
| 40-104      | ACS4  | 4     |
| 40-105      | ACS5  | 5     |
| 40-106      | ACS6  | 6     |
| 40-107      | ACS7S | 7S    |
| 40-109      | ACS7L | 7L    |
| NET EACH... |       | 12½c  |
| 40-111      | ACS7C | 7S-7L |
| 40-108      | ACS8  | 8     |
| NET EACH... |       | 14c   |
| 40-112      | ACS9  | 9     |
| NET...      |       | 16c   |

## MINIATURE SOCKETS

78-7P and 54-7P fit type 1R5, 1S4, 1S5, 1T4, 9001, 9002, and 9003 tubes. 78-5H fits Hytron Bantam Jr., HY113, HY115 and HY125 tubes. 78-5P fits Raytheon CK501-2-3-4 series. Mount in ¾" hole. With snap-on mounting ring. All are bakelite except 54-7P which is polystyrene.

| No.    | Type  | EACH |
|--------|-------|------|
| 40-120 | 78-7P |      |
| 40-122 | 78-5H | 10c  |
| 40-123 | 78-5P |      |
| 40-121 | 54-7P | 21c  |

## INSULEX SOCKETS



Low-loss glazed Insulex. Sturdy. Re-enforced spring contacts. Centers, 1½". Shpg. wt., 8 oz. ea.

| No.    | Prong   | EACH |
|--------|---------|------|
| 40-274 | 4       |      |
| 40-275 | 5       | 38c  |
| 40-276 | 6       | 41c  |
| 40-277 | 7S      |      |
| 40-278 | 8 Octal | 50c  |

## MILLEN SOCKETS

### STEATITE

Higher steatite body provides maximum insulation between contacts and chassis.



Low-loss. Wt., 4 oz.  
No. Contacts  
72-060. 4  
72-061. 5  
72-062. 6  
72-064. 8-Octal  
**NET EACH 24c**

## ACORN TYPE

"Clincher" contact type Acorn tube sockets. Prevents tubes from loosening. Beryllium copper, silver-plated contacts conform to Government specifications. Highest quality ceramic low loss base; diameter, 1½". Shpg. wt. 4 oz.  
72-065. NET **66c**



## SHIELDED CONNECTORS

Metal snap-on caps. 1½" x 1½".

| No.                      | Prong   | No.    | Prong   |
|--------------------------|---------|--------|---------|
| 40-504                   | 4       | 40-524 | 4       |
| 40-505                   | 5       | 40-525 | 5       |
| 40-506                   | 6       | 40-526 | 6       |
| 40-507                   | 7S      | 40-527 | 7S      |
| 40-508                   | 8 Octal | 40-528 | 8 Octal |
| NET EACH                 |         |        | 15c     |
| 40-512. 9 Prong Male...  |         |        | 17c     |
| 40-513. 11 Prong Male... |         |        | 21c     |

## CABLE CLAMP

Fits connectors above. For holes ¾" to 1".  
40-670. NET **6c**





# PLUGS • JACKS • CONNECTORS

## VALUES IN POPULAR PHONE PLUGS



**FIG. A. STANDARD PLUG**  
Take two sets of cord tips. Have molded bakelite barrel. Barrel size:  $\frac{1}{4}$ " dia.,  $1\frac{1}{4}$ " long. Wt. 5 oz.  
**41-600. Black. 32c**  
**41-601. Red. EACH. 32c**

**FIG. A. METAL SHELL TYPE**  
Bright polished metal shell for shielding purposes. Barrel size:  $\frac{1}{4}$ " dia.,  $2\frac{1}{2}$ " long. 6 oz.  
**41-605. NET. 53c**

**FIG. B. STUBBY TYPE PLUG**  
Shielded type plug for use in limited space. Polished metal shell. Suitable for portable amplifiers. Barrel size,  $\frac{1}{4}$ " dia. x  $1\frac{1}{4}$ ".  
**41-610. NET. 42c**

**FIG. D. CARTER FLAT PLUG**  
Bakelite,  $\frac{1}{4}$ " dia.,  $\frac{1}{4}$ " thick. Stay-card anchor. 4 oz.  
**41-620. NET. 39c**



## HOWARD B. JONES PLUGS AND SOCKETS

Bakelite units with metal caps and cable clamps. Have extra heavy contacts and tight grip, for heavy-duty use. Small size with good separation between contacts. Shipping weight, 8 oz.

| No. of Contacts | Plugs     |     | Sockets   |     |
|-----------------|-----------|-----|-----------|-----|
|                 | Stock No. | NET | Stock No. | NET |
| 2               | 40-802    | 22c | 40-882    | 22c |
| 3               | 40-803    | 22c | 40-883    | 22c |
| 4               | 40-804    | 25c | 40-884    | 26c |
| 6               | 40-806    | 29c | 40-886    | 31c |
| 8               | 40-808    | 36c | 40-888    | 35c |
| 10              | 40-810    | 36c | 40-890    | 40c |
| 12              | 40-812    | 40c | 40-892    | 45c |

\*Plug and socket are round.

All others rectangular.

## JONES "140" TERMINAL STRIPS

Barriers between terminals increase insulation, by increasing leakage path. Has many applications. Molded bakelite base  $\frac{1}{4}$ " wide.  $\frac{1}{2}$ " high. 5-40x $\frac{1}{2}$ " screws. 6 oz.

| No.    | Description | Type  | EA. |
|--------|-------------|-------|-----|
| 41-800 | 2-Terminal  | 1-140 | 11c |
| 41-801 | 3-Terminal  | 1-140 | 16c |
| 41-802 | 6-Terminal  | 6-140 | 27c |

## AMPHENOL PLUGS AND RECEPTACLES

### AC PLUGS—RECEPTACLES



Molded bakelite. Fig. A mounts with retaining ring. Fig. B has mounting plate. \*Are polarized.

| No.    | Flg. | Type   | NET                |
|--------|------|--------|--------------------|
| 40-675 | A    | Male   |                    |
| 40-676 | A    | Male*  |                    |
| 40-677 | A    | Female | 15c                |
| 40-680 | B    | Male   |                    |
| 40-681 | B    | Male*  | 16 $\frac{1}{2}$ c |
| 40-682 | B    | Female |                    |

**PLUGS FOR ABOVE.** Metal-encaused bakelite connectors with cable clamp. For plugging into all AC flush type receptacles above.

**40-690. Standard Male. 40-692. Female. 24c**  
**40-691. Polarized Male. NET EACH.**

## VALUES IN SIGNAL CORPS JACKS

**41-040.** Single-circuit phone jacks. Equivalent of Signal Corps JK-34A. Mechanically perfect but cannot pass official requirements because of slight fault in plating. **NET. 39c**  
**41-041.** Microphone jack. Equivalent of Signal Corps JK-33A. **NET. 49c**



## FIG. C. MIDGET TYPE PLUGS

A standard shank radio plug with extra short barrel, for use where front of panel space is limited. This standard radio jack. Compact.  $\frac{1}{2}$ " overall. Bakelite barrel length  $1\frac{1}{2}$ ". Dia.  $\frac{1}{4}$ ". 6 oz.

**41-625. Black. 32c**  
**41-626. Red. EACH. 32c**

**FIG. C. METAL SHELL TYPE**  
Has a metal shell for shielding purposes. Barrel  $1\frac{1}{4}$ " x  $\frac{1}{4}$ ". Otherwise identical to midget plugs listed above. Wt. 6 oz.

**41-630. NET. 38c**

## EXTRA PLUG BARRELS

**41-650.** Black for 41-600. **13c**  
**41-651.** Red for 41-601. **13c**  
**41-652.** Metal for 41-605. **35c**  
**41-656.** Metal for 41-610. **26c**  
**41-653.** Black for 41-625. **13c**  
**41-654.** Red for 41-626. **13c**  
**41-655.** Metal for 41-630. **24c**

## MALLORY PHONE PLUGS AND JACKS



**41-641.** Fig. A. Mallory type 75. Two-Way Phone Plug with tie-cord anchor and insulated bakelite shell. **NET. 35c**

**41-640.** Fig. B. Mallory type 75N. Two-Way Phone Plug with tie-cord anchor and shielded bright-finish metal shell. **NET. 53c**

**41-937.** Fig. B. Mallory type 75A. Two-Way Phone Plug. Same as type 75N above, except has built-in cable clamp. **NET. 88c**

**41-941.** Fig. A. Mallory type 76. Three-Way Microphone Plug with insulated bakelite shell. **NET. 53c**

**41-938.** Fig. C. Mallory type 100. Two-Way Extension Jack for No. 75, 75N, and 75A plugs. Fiber shell. **NET. 71c**

**41-050.** Fig. F. Mallory type A-1 Infant Open Circuit Jack.  $\frac{1}{4}$ " wide,  $1\frac{1}{4}$ " long.  $\frac{1}{4}$ " bushing.  $\frac{1}{4}$ " long. **NET. 18c**

**41-051.** (Not illustrated) Mallory type A-2 Midget Shorting Type Closed Circuit Jack.  $\frac{1}{4}$ " wide,  $1\frac{1}{4}$ " back of panel. **NET. 26c**

**41-053.** (Not illustrated) Mallory type A2A Midget Transfer Type Closed Circuit Jack. **NET. 29c**

**41-642.** Fig. G. Mallory type SC-1 Open Circuit Jack. Equivalent of Signal Corps Jack No. JK-34A. **NET. 59c**

**41-643.** Fig. E. Mallory type SCA-28 Open Circuit Three Circuit Jack. Equivalent of Signal Corps Jack No. JK-33A. **NET. 93c**

**41-054.** Fig. D. Mallory type 701 Open Circuit Junior Jack.  $1\frac{1}{4}$ " long, and  $1\frac{1}{4}$ " back of panel. **NET. 29c**

**41-052.** Fig. D. Mallory type 703 Junior Jack. Open circuit with additional "make" circuit. **NET. 47c**

## MALLORY LONG FRAME JACKS

Sturdy steel frames and heavy phosphor-bronze springs with wiping contact action insure positive dependable performance and long life. **NET. 35c**

**34-441.** No. 1. Open Circuit Jack. **NET. 44c**

**34-442.** Number 2A. Closed Circuit Jack. **NET. 44c**

**41-056.** Number 5. Closed Circuit; Make-Break Jack. **NET. 65c**

## 2-PIECE CONNECTORS



Of two-piece molded bakelite.

| MALE   |        | FEMALE |        |
|--------|--------|--------|--------|
| No.    | Prongs | No.    | Prongs |
| 40-654 | 4      | 40-624 | 4      |
| 40-605 | 5      | 40-625 | 5      |
| 40-606 | 6      | 40-626 | 6      |
| 40-608 | 8      | 40-628 | 8      |

**NET EACH. 21c EACH. 27c**

## RUBBER-HANDLE PLUGS

Molded bakelite plugs and sockets in sturdy  $\frac{1}{4}$ " rubber handles.

| PLUGS  |        | SOCKETS   |        |
|--------|--------|-----------|--------|
| No.    | Prongs | No.       | Prongs |
| 40-554 | 4      | 40-564    | 4      |
| 40-555 | 5      | 40-565    | 5      |
| 40-556 | 6      | EACH. 35c |        |

**NET EACH. 18c NET. 41c**

## BAKELITE PLUG

A sturdy, neat, two-piece molded bakelite connector plug for speaker connections, etc. Top assembly for easy assembly.

| Stock No. | Prongs    | EACH |
|-----------|-----------|------|
| 40-654    | 4         |      |
| 40-655    | 5         |      |
| 40-656    | 6         | 19c  |
| 40-657    | 7S        |      |
| 40-658    | 8 (Octal) | 25c  |

## NU-WAY SNAPS, STUDS, AND LUGS



Make-break contacts for temporary connections. For experimental work in laboratories, service shops, etc. Excellent for demonstration of circuits and parts in training classes. Nickel-plated brass. Snaps may be cascaded for convenient multiple connections.

**44-450.** Fig. A. Snaps. For lugs or studs listed below. Provided with crimp-on solder lug. **PER 1000. \$4.00. \$5.75**  
**PER 100. \$4.00.**

**44-451.** Fig. B. Lugs. For Bush mounting. With hole for 6-32 screw. Takes snaps above. **PER 1000. \$20.00. \$2.85**  
**PER 100. \$20.00.**

**44-452.** Fig. C. Studs. For panel or chassis mount. 6-32 x  $\frac{1}{2}$ ".  $\frac{1}{4}$ " nut. Takes snaps above. **PER 1000. \$20.00. \$2.85**  
**PER 100. \$20.00.**

## MIDGET SHORT JACK

Smallest made. High grade bakelite insulation. Requires  $\frac{1}{8}$ " mounting hole. For standard size bread phone plug. Shpg. wt. 4 oz.

**41-030. Open Circuit. 15c**  
**41-031. Single Closed Circuit. NET. 19c**



# PLUGS · JACKS · POSTS · CLIPS

## ALLIGATOR CLIPS



Banana plug fits back of clip. Insulated type with red or black handle. Provides good firm grip. Ideal for work in tight places. Non-rusting finish. Wt., 1 oz.

41-270. Fig. of A. 2' long. EACH. . . . . 4c

41-271. Pkg. of 12. . . . . 23c

FIG. B. 2 1/2" INSULATED

41-280. Red. . . . . 12c

41-285. Black. EACH. . . . . 12c

41-281. Red. Pkg. of 12. . . . . 12c

41-286. Black. Pkg. of 12. . . . . 12c

PER PKG. . . . . \$1.02

FIG. B. 2 1/2" INSULATED

Plated metal grips with insulated handle. Has insert for phone tips.

Approximate shpg. wt., 1 oz.

41-300. Red. . . . . 32c

41-305. Black. EACH. . . . . 32c

41-301. Red. Pkg. of 12. . . . . 32c

41-306. Black. Pkg. of 12. . . . . 32c

PER PKG. . . . . \$3.45

## BINDING POSTS



FIG. A. EBY JUNIOR. Non-removable screw-type top. 1/2" dia. Screw is 6-32 x 1/2" long. With soldering lug. Wt., 4 oz.

41-350. Plain. NET. . . . . 15c

FIG. B. BAKELITE. Solidly constructed of molded bakelite.

1/2" diameter head. Has brass threaded insert. Nickel-plated screw and nut. Length overall, 1 3/4". Shpg. wt., 4 oz.

41-369. Black. . . . . 11c

41-370. Red. EACH. . . . . 11c

FIG. C. COMBINATION FOR BANANA OR TIP PLUG. Top

takes banana plug; shank accommodates phone tip or wire. With

all required hardware. Wt., 4 oz.

Color EACH Pkg. of 12

Red Black 41-330 41-331

41-335 41-336

NET 14c \$1.51

FIG. D. METAL DOUBLE

POST. Sturdy spring-action 1 1/4" double metal binding post. 3/8"

diameter. 3/8" mounting centers. Bottom of post includes an 8-32

machine screw. Wt., 4 oz.

41-372. NET. . . . . 10c

BAKELITE TWIN JACKS

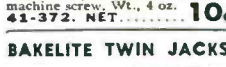


FIG. A. Twin tip jack assembly, mounted on laminated bakelite strip 2" long by 3/4" wide, available as indicated below. Wt., 2 oz.

Type EACH Pkg. of 12

Speaker 41-375 41-376

Plain 41-379 41-380

NET 7c 75c

FIG. B. MOLDED TWIN

JACKS. For use with speakers, head phones, phono-pickups, etc.

Have single mounting screw molded into bakelite. Size, 1 1/2 x

1 1/4". For cord tips. Wt., 2 oz.

41-392. Plain. . . . . 24c

NET. . . . . 24c

41-390. Speaker. NET. 32c

SHORTING TYPE JACKS

Circuit closes when tips are

inserted. Similar to Fig. B. Single

mounting stud. 2 oz.

41-398. NET. . . . . 24c

## BANANA PLUGS AND JACKS



### STANDARD PLUGS

FIG. A. NON-INSULATED heavy metal plug with spring-metal prong 1 1/4" long. Used in coils and on transmitting or laboratory equipment. Thread is 6-32 x 1/2" long. Shpg. wt., 4 oz.

41-400. EACH. . . . . 7c

41-401. Pkg. of 12. . . . . 76c

FIG. B. INSULATED TYPE

Set screw holds wire in place. Size: 1 1/4". Plastic insulation. Has

solderless screw connection. 4 oz.

Color EACH Pkg. of 12

Red Black 41-405 41-406

41-410 41-411

NET 11c \$1.19

SPLIT TYPE PLUGS

FIG. C. NON-INSULATED. Positive action contact prongs

prevent faulty electrical continuity. Hexagonal body shape facilitates

lightening. With two nuts. Size: 1 1/4". Wt., 4 oz.

41-420. EACH. . . . . 6c

41-421. Pkg. of 12. . . . . 65c

100 For. . . . . \$5.65

FIG. D. INSULATED TYPE

Solderless type with set screw that firmly secures wire to plug.

Has bakelite insulated handle. Fits banana jack. Size, 1 1/4". 4 oz.

Color EACH Pkg. of 12

Red Black 41-425 41-426

41-430 41-431

NET 11c \$1.19

100 For. . . . . \$5.85

## TERMINALS—TIES—CONNECTORS



| Fig. | Description                            | Stock No. | Per Doz. |
|------|----------------------------------------|-----------|----------|
| A    | Insulated Tie Terminal; Tie Point.     | 41-751    | 23c      |
| B    | Single-hole mount. For 1/4" Dia. Pins. | 41-756    | 14c      |
| C    | Terminal lugs. Make your own strips.   | 41-766    | 45c      |
| D    | Pressure type terminal-board contact.  | 41-771    | 10c      |
| E    | Black insulated pin-plug. Fits "D"     | 41-776    | 12c      |
| F    | Single-lug mounting strip.             | 41-781    | 11c      |

41-785. Fig. G. Universal storage battery binding post. EACH. 19c

## TERMINAL STRIPS



1/4" thick bakelite strips.

Term. EA. No. NET Doz. No. NET

2 41-810 12c 41-811 1.30

3 41-815 15c 41-816 1.62

4 41-820 18c 41-821 1.94

5 41-825 21c 41-826 2.27

6 41-830 24c 41-831 2.60

## BERYLLIUM BANANA PLUGS

Made of beryllium copper for extra spring tension and durability. Used by U.S. Signal Corps.

Rivet type shank 1/4" dia. Threaded type shank 1/4" dia. Threaded for 6-32 nuts.

41-070. Rivet Type Ea. 12c

41-071. Threaded. Each. 21c

## HEAVY-DUTY STRIPS

Bakelite strips with securely fastened screw terminals.



Stock No. Term. EACH

41-878 2 10c

41-880 3 17c

41-882 4 25c

41-890 5 29c

41-895 6 31c

41-897 7 41c

41-898 8 47c

## QUALITY TIP JACKS



FIG. A. Metal tip jack. 1/4" mtg. hole; takes 1/4" panel. Afford

positive grip with tip.

41-100. EACH. . . . . 6c

41-101. Pkg. of 12. . . . . 65c

FIG. B. Short compact type. Fits

panels up to 1/4" thick.

41-105. EACH. . . . . 6c

41-106. Pkg. of 12. . . . . 65c

FIG. C. INSULATED TYPE. Ideal

to fully insulate circuits on metal panels, cabinets, etc. Fiber

washer and nut are included.

Color EACH Pkg. of 12

Red Black 41-110 41-111

41-115 41-116

NET 9c 97c

FIG. D. BANANA OR CORD

TIP JACK. Combination insulated

jack for standard tip or banana

type plug. 1/4" mtg. hole. Fiber

washer and nut are included.

Color EACH Pkg. of 12

Red Black 41-130 41-131

41-135 41-136

NET 11c \$1.19

MALLORY COLORED

TIP JACKS

Insulated. For standard

cord tip. 1/4" mtg. hole.

41-150. Black. . . . . 12c

41-151. Red. EACH. . . . . 12c

41-155. Set of 2. . . . . 24c

ROUND HEAD

TIP JACK

Bakelite top and washer

insulated tip jack from metal

panel or chassis. Assures positive insulation.

Shpg. wt., 3 oz.

Color EACH Pkg. of 12

Red Black 41-170 41-171

41-175 41-176

NET 10c \$1.08

HANDY

CORD TIPS

FIG. A. Standard cord tip; fits

regular tip jack.

41-202. 100 For. . . . . \$1.17

41-201. 12 For. . . . . 18c

FIG. A. Similar to above but

heavy duty for use on test leads,

etc. Plated metal.

41-211. 12 For. . . . . 86c

41-210. EACH. . . . . 8c

FIG. B. Hole in sleeve provides

means of soldering to wire insert.

41-222. . . . . \$1.45

41-221. 12 For. . . . . 19c

FIG. C. "Imp" midget 1/4" solderless

screw-on connector.

41-231. 12 For. . . . . 65c

41-230. EACH. . . . . 6c

FIG. D. Standard size 1/4" solderless

screw-on connector.

41-241. 12 For. . . . . 65c

41-240. EACH. . . . . 6c

FIG. E. INSULATED TYPE.

Color EACH Pkg. of 12

Red Black 41-250 41-251

41-255 41-256

NET 10c \$1.08



# CLIPS • FUSES • ACCESSORIES

## TYPE 8AG FUSES

Designed especially to protect test instruments and meters. Glass enclosed units, 1 1/4". High speed action with short time lag. For use on AC or DC up to 250 volts. Highest quality. Laboratory tested.



Buss or Littelfuses supplied depending upon available stocks.

| Rating Amps. | Max. Load M. A. | Aver. Resist. M. A. Load | Stock No. | NET EA. | Use to Protect |               |
|--------------|-----------------|--------------------------|-----------|---------|----------------|---------------|
|              |                 |                          |           |         | Volt-meters    | Milliammeters |
| 1/200        | 5               | 500                      | 52-200    | 18c     | Over 1000      | Galv.         |
| 1/100        | 10              | 110                      | 52-201    |         | 1000           | Up to 0-1     |
| 1/32         | 25              | 20                       | 52-202    |         | 500-1000       | 0-10          |
| 1/16         | 60              | 5.0                      | 52-203    | 12c     | 100-500        | 0-25          |
| 1/8          | 100             | 1.5                      | 52-204    |         |                | 0-75          |
| 1/8          | 100             | 3.0                      | 52-205    |         | 20-100         | 0-75          |
| 1/4          | 200             | 6.2                      | 52-206    |         | 10-20          | 0-150         |
| 3/8          | 300             | 3.0                      | 52-207    | 9c      | 5-10           | 0-250         |
| 1/2          | 400             | 2.5                      | 52-208    |         | 3-5            | 0-350         |
| 3/4          | 600             | 4.0                      | 52-209    |         |                | 0-500         |
| 1            | 1000            | 24                       | 52-210    |         |                | 0-1000        |
| 2            | 2000            | 14                       | 52-211    | 6c      |                | 0-2000        |

## TYPE 3AG FUSES FOR RADIO & AMPLIFIER

For use in 105-120 volt primary line. Underwriters' Approved. 1 1/4 x 1/4".

| Amps. | Volts | No.    | EACH | Amps. | Volts | No.    | EACH |
|-------|-------|--------|------|-------|-------|--------|------|
| 1/4   | 500   | 52-230 |      | 2     | 250   | 52-236 |      |
| 1/4   | 500   | 52-231 | 9c   | 3     | 250   | 52-237 | 5c   |
| 1/4   | 500   | 52-232 |      | 4     | 250   | 52-238 |      |
| 1/4   | 500   | 52-233 |      | 5     | 250   | 52-239 | 6c   |
| 1/2   | 250   | 52-234 | 5c   | 6     | 250   | 52-240 | 9c   |
| 1 1/4 | 250   | 52-235 |      | 8     | 250   | 52-241 |      |

## FUSE MOUNTINGS



For tubular instrument and meter type fuses.

52-285. For 8AG 1" type fuses. Use where connections are above chassis or panel.  
EACH 9c  
52-286. Pkg. of 12..... 98c  
40-450. As above except for 3AG 1 1/4" type fuses.  
EACH 9c  
40-452. Pkg. of 12..... 98c  
52-290. For 8AG fuses. For below panel connections.  
EACH 12c  
52-295. Meter-back type. For 8AG fuses. 1" x 1 1/4" x 1/4".  
NET 12c



METAL-COVERED MOUNT

For type 3AG fuses. U.L. approved. Metal shell with bakelite base. Size, 2 1/4 x 1/4. 2 1/4" mounting centers. Wt., 6 oz.  
41-725. EACH..... 12c  
41-726. Per Dozen..... \$1.30

## HINGED COVER TYPE

Underwriters' Appr. Single and double pole mount. Bakelite base, 2 1/4 x 1 1/4. For coin machines, amplifiers, radio sets, etc.  
41-730. For 1 fuse..... 18c  
41-731. For 2 fuses..... 36c



## BUSS FUSE HOLDERS

Bakelite. For 1/4" dia. fuses. Fits panels to 1/4" thick. Turn of knob releases fuse. No tools needed. Underwriters' Lab. inspected. 2" long. Mounts in 1/4" hole. 6 oz.  
41-724. HKM. For 8AG 1" fuses.  
41-723. HKM. For 3AG 1 1/4" fuses.  
EACH 29c  
41-722. HCM. Takes 3AG or 4AG fuses. Mounts in 1/4" hole..... 44c

## SFE AUTO FUSES

New approved auto and radio fuses replacing older 3AG type. Order by amp. rating. Different length of fuse for each rating prevents incorrect replacements.

| EACH   |     | 12 For |            |
|--------|-----|--------|------------|
| No.    | NET | Amps.  | No. NET    |
| 52-250 |     | 4      | 52-251     |
| 52-255 | 3c  | 6      | 52-256     |
| 52-260 |     | 9      | 52-261     |
| 52-265 |     | 12     | 52-266     |
| 52-270 |     | 15     | 52-271     |
| 52-275 | 4c  | 30     | 52-276 43c |



## LITTELFUSE EXTRACTOR POSTS

An all bakelite panel or chassis mount fuse holder for tubular type instrument or meter fuses. Removed extractor knob easily removed by screwdriver or coin. Bakelite molded construction. No metal parts exposed. Mounts in 3/8" hole in panels up to 1/4" thick. Underwriters Laboratory inspected. Ruggedly constructed. Size, 2" overall. Shpg. wt., 6 oz.  
41-720. For 3AG 1/4 x 1 1/4" standard type fuses.  
41-721. For 8AG 1/4 x 1" meter type fuses.  
NET EACH..... 24c

## BUSS QUALITY FUSES

### TYPE 3AG

Tubular fuses. Compactly made. Size is 1 1/4 in. x 1/4 in. Protect radio sets, test instruments, etc. In metal box. The standard fuse of the industry.

| No.      | Amp.         | No.      | Amp.         |
|----------|--------------|----------|--------------|
| 52-150   | 1            | 52-155   | 5            |
| 52-151   | 1 1/2        | 52-156   | 10           |
| 52-152   | 2            | 52-157   | 15           |
| 52-153   | 3            | 52-158   | 20           |
| 52-154   | 4            | 52-159   | 25           |
| Box of 5 | NET..... 16c | Box of 5 | NET..... 10c |



## MUELLER GENERAL PURPOSE CLIPS



For making quick, but temporary electrical connections. Standard packages of 10 clips; 5 marked + and 5 plain. Types marked with asterisks (\*) are solid copper. Screw connections; no solder needed.

### STEEL MESH TEETH TEST CLIPS FIG. A

| Mfr's Type | Amps. | Size   | Jaw Spread | Spring | EACH   |     | Box of 10 |     |
|------------|-------|--------|------------|--------|--------|-----|-----------|-----|
|            |       |        |            |        | No.    | NET | No.       | NET |
| 45         | 5     | 1 1/4" | 1 1/4"     | 7 lb.  | 45-000 | 4c  | 45-001    | 32c |
| 45B        | 10*   | 1 1/2" | 1 1/2"     | 10 lb. | 45-005 | 6c  | 45-006    | 54c |
| 45B        | 10    | 1 1/2" | 1 1/2"     | 10 lb. | 45-010 | 4c  | 45-011    | 24c |
| 45B        | 20    | 2"     | 2"         | 10 lb. | 45-015 | 10c | 45-016    | 88c |
| 45B        | 20    | 2 1/4" | 2 1/4"     | 12 lb. | 45-018 | 8c  | 45-019    | 69c |

For telephone and signal corp; has needle between jaws for piercing insulated wires. Makes good electrical contact. Easy to handle.

### BATTERY CLIPS FIG. B

|     |     |        |        |        |        |     |        |        |
|-----|-----|--------|--------|--------|--------|-----|--------|--------|
| 24A | 25  | 2 1/4" | 1 1/4" | 17 lb. | 45-020 | 8c  | 45-021 | \$0.68 |
| 21A | 50  | 4"     | 1 1/4" | 33 lb. | 45-030 | 13c | 45-031 | 1.18   |
| 11A | 100 | 6"     | 1 1/4" | 38 lb. | 45-040 | 45c | 45-041 | 4.12   |

### SOLID COPPER TEST CLIPS FIG. B

|    |      |        |        |        |        |      |        |        |
|----|------|--------|--------|--------|--------|------|--------|--------|
| 24 | 50*  | 2 1/4" | 1"     | 17 lb. | 45-025 | 15c  | 45-026 | \$1.37 |
| 21 | 100* | 4 1/4" | 1 1/4" | 33 lb. | 45-035 | 38c  | 45-036 | 3.43   |
| 11 | 200* | 6 1/4" | 1 1/4" | 38 lb. | 45-045 | 75c  | 45-046 | 6.86   |
| 33 | 300* | 7 1/4" | 2"     | 52 lb. | 45-050 | 1.35 | 45-051 | 12.25  |

### CROCODILE CLIPS FIG. C

|    |        |                   |        |    |        |     |
|----|--------|-------------------|--------|----|--------|-----|
| 85 | 2 1/4" | Fit banana plugs. | 45-060 | 5c | 45-061 | 44c |
|----|--------|-------------------|--------|----|--------|-----|

### ALLIGATOR CLIPS FIG. D

|      |        |                     |        |    |        |     |
|------|--------|---------------------|--------|----|--------|-----|
| 60S  | 2"     | Fit banana plugs.   | 45-065 | 5c | 45-066 | 39c |
| 60HS | 2 1/4" | Ins'd red handle.   | 45-070 | 9c | 45-071 | 83c |
| 60HS | 2 1/4" | Ins'd black handle. | 45-075 | 9c | 45-076 | 83c |
| 60CS | 2"     | Solid copper.       | 45-080 | 8c | 45-081 | 69c |

### NON-FERROUS R.F. TEST CLIP FIG. E

|    |        |                  |        |     |        |     |
|----|--------|------------------|--------|-----|--------|-----|
| 88 | 1 1/4" | Ideal for coils. | 45-055 | 10c | 45-056 | 88c |
|----|--------|------------------|--------|-----|--------|-----|

### INSULATORS FOR MUELLER CLIPS. FIG. F

Supplied only in pairs (1 red and 1 blue). Rubber insulated type available only on high priority; plastic types in lower ratings. Plastic used has high dielectric constant; oil and water resistant.

| For Clip | Rubber |      | Plastic |      | For Clip | Rubber |        | Plastic |      |
|----------|--------|------|---------|------|----------|--------|--------|---------|------|
|          | No.    | Pair | No.     | Pair |          | No.    | Pair   | No.     | Pair |
| 45, 45C  | 45-100 | 16c  | 45-110  | 12c  | 27       | 45-120 | \$0.24 | 45-152  | 24c  |
| 45B, 82  | 45-105 | 18c  | 45-115  | 18c  | 41, 11A  | 45-125 | 1.04   | 45-157  | 1.04 |
| 24, 24A  | 45-110 | 38c  |         |      | 85       | 45-130 | .12    | 45-158  | 12c  |
| 21, 21A  | 45-115 | 66c  |         |      | 88       |        |        | 45-155  | 10c  |

## INDUSTRIAL TYPE ECONOMY RENEWABLE FUSES

Ferrule-type fuses with renewable links. For laboratory and industrial applications. Sizes listed are for 250 volt circuits ranging from 3 to 60 amperes safe current-carrying capacity. Underwriters Laboratory inspected. Blown drop-out links may be replaced quickly and easily; unscrew threaded end-piece, pull out the old link, insert new link, and screw end-piece in place again. Thus a blown fuse can be restored to operation within a few minutes time. See listing of most commonly used drop-out links below. Size, 2" long, 1/2" dia. Average shipping weight, 3 oz.



| No.    | Amps. | NET | No.    | Amps. | NET | No.    | Amps. | NET |
|--------|-------|-----|--------|-------|-----|--------|-------|-----|
| 52-100 | 3     |     | 52-104 | 20    | 36c | 52-108 | 40    |     |
| 52-102 | 10    | 36c | 52-105 | 25    | 36c | 52-109 | 45    |     |
| 52-103 | 15    |     | 52-106 | 30    | 36c | 52-110 | 50    |     |
|        |       |     | 52-107 | 35    | 72c | 52-111 | 60    |     |

### "DROP-OUT" RENEWAL LINKS

|        |    |    |        |    |    |        |    |    |
|--------|----|----|--------|----|----|--------|----|----|
| 52-120 | 3  |    | 52-124 | 20 | 2c | 52-128 | 40 |    |
| 52-121 | 6  | 2c | 52-125 | 25 | 2c | 52-129 | 45 | 4c |
| 52-122 | 10 |    | 52-126 | 30 | 2c | 52-130 | 50 |    |
| 52-123 | 15 |    | 52-127 | 35 | 4c | 52-131 | 60 |    |

### HANDY FUSE RETAINERS

41-735. For type 3AG, SFE14, SFE20, and similar tubular fuses. All-metal outer shell. Size 2 1/4" x 1/2" overall. Wt., 4 oz.  
EACH 8c  
41-736. Pkg. of 12..... 80c

41-790. For type 3AG, 4AG, SFE14, SFE20, SFE30, and similar tubular fuses. All-metal outer shell. Size 2 1/4" x 1/2" overall. Wt., 4 oz. EACH 17c  
41-791. Pkg. of 12..... \$1.85

# RADIO HARDWARE VALUES



## RIGHT ANGLE BRACKETS

Plated-metal angle brackets. Provide support for cabinets, racks, etc.  $\frac{1}{2}$ " width. Shpg. wt. 12 oz.

| Stock No. | Size                              | 12 For |
|-----------|-----------------------------------|--------|
| 44-001    | $\frac{1}{2}$ " x $\frac{1}{2}$ " | 9c     |
| 44-006    | $\frac{1}{2}$ " x $\frac{1}{2}$ " | 14c    |
| 44-011    | 1" x 1"                           | 19c    |
| 44-016    | 1" x $\frac{1}{2}$ "              | 24c    |
| 44-021    | 1" x $\frac{1}{2}$ "              | 32c    |

## WITH TAPPED HOLES

For chassis, cabinets, etc. One 8-32 tapped hole and one  $\frac{1}{2}$ " dia. plain hole. Plated metal. Wt. 12 oz.

| Stock No. | Size                              | 12 For |
|-----------|-----------------------------------|--------|
| 44-031    | $\frac{1}{2}$ " x $\frac{1}{2}$ " | 26c    |
| 44-036    | $\frac{1}{2}$ " x $\frac{1}{2}$ " | 32c    |
| 44-041    | $\frac{1}{2}$ " x $\frac{1}{2}$ " | 32c    |

44-325. Bracket assortment. 30 popular sizes in angles and brackets. Wt. 1 lb. NET. 32c



## SPADE LUGS

For mounting shield cans, etc. Cadmium plated. 6-32 thread. 44-902. Per Gross, 37c. 44-901. PER 12. NET. 6c



## RIVETS

Sturdy tubular rivets for replacement or repair. SOLID TYPE

| Size<br>Length   | 24 Lots |     | Gross Lots |     |
|------------------|---------|-----|------------|-----|
|                  | No.     | NET | No.        | NET |
| $\frac{3}{8}$ "  | 44101   | 11c | 44102      | 46c |
| $\frac{1}{4}$ "  | 44106   | 12c | 44107      | 48c |
| $\frac{3}{16}$ " | 44111   | 18c | 44112      | 55c |

## EYELET TYPE

|                      |                      |     |       |     |
|----------------------|----------------------|-----|-------|-----|
| $\frac{1}{8}$ "      | 44121                | 11c | 44122 | 46c |
| $\frac{1}{4}$ "      | 44126                | 18c | 44127 | 55c |
| $\frac{1}{2}$ "      | 44131                | 20c | 44132 | 59c |
| $\frac{1}{8}$ " dia. | $\frac{1}{4}$ " dia. |     |       |     |

## ESCUTCHEON SCREWS

Metal wood screw  $\frac{1}{4}$ " long. For escutcheons, nameplates, indicators, etc. 44-141. Gross. 29c

## RUBBER BUMPER FEET

Standard 6-32 screw. Provide steady, solid footing for table cabinets, etc. Protects surfaces. 44-151. Pkg. of 12. 26c 44-152. Gross. 52.25

## INSULATED GROMMETS

Prevent wires from fraying or breaking. Knurled mounting nut.

| Stock No. | Fits Inside     | Per Doz. |
|-----------|-----------------|----------|
| 44-161    | $\frac{1}{8}$ " | \$0.91   |
| 44-166    | $\frac{1}{4}$ " | .97      |
| 44-171    | $\frac{1}{2}$ " | 1.16     |
| 44-176    | $\frac{3}{4}$ " | 1.30     |

## RUBBER GROMMETS

For insulating holes in metal up to  $\frac{1}{2}$ " thick. Black rubber.

| Stock No. | Fits Inside     | Per Doz. |
|-----------|-----------------|----------|
| 44-181    | $\frac{1}{8}$ " | 9c       |
| 44-186    | $\frac{1}{4}$ " | 21c      |
| 44-191    | $\frac{1}{2}$ " | 22c      |



## RADIO HARDWARE IN JARS



Glass jars with screw-on caps offer a neat, convenient way of storing your radio hardware. Jar comes filled with any single selection of hardware below. Buy your hardware this way and keep your workbench ship-shape. Shpg. wt. per jar 8 oz. **YOUR PRICE ANY JAR COMPLETE WITH HARDWARE. 35c** 44-500. Glass Jar Only. 6c

## R.H. MACHINE SIZES (A)

| Stock No. | Quantity | Size                  |
|-----------|----------|-----------------------|
| 44-510    | 100      | 4-36x $\frac{1}{2}$ " |
| 44-511    | 75       | 4-36x $\frac{3}{4}$ " |
| 44-512    | 90       | 6-32x $\frac{1}{2}$ " |
| 44-513    | 80       | 6-32x $\frac{3}{4}$ " |
| 44-514    | 70       | 6-32x1"               |
| 44-515    | 50       | 8-32x $\frac{1}{2}$ " |
| 44-516    | 65       | 8-32x $\frac{3}{4}$ " |
| 44-517    | 35       | 10-32x1"              |

## NICKELED HEX NUTS (B)

| Stock No. | Quantity | Size                  |
|-----------|----------|-----------------------|
| 44-530    | 100      | 4-36x $\frac{1}{2}$ " |
| 44-531    | 90       | 6-32x $\frac{1}{2}$ " |
| 44-532    | 80       | 6-32x $\frac{3}{4}$ " |
| 44-533    | 80       | 8-32x $\frac{1}{2}$ " |
| 44-534    | 50       | 10-32x1"              |

## RACK SCREWS-WASHERS (C)

44-545. 20 each 10-32x $\frac{1}{2}$ " oval head screws with cup washers.

## SELF-TAPPING SCREWS (D)

| Stock No. | Quantity | Size                   |
|-----------|----------|------------------------|
| 44-550    | 50       | No. 6x $\frac{1}{2}$ " |
| 44-551    | 45       | No. 6x $\frac{3}{4}$ " |
| 44-552    | 40       | No. 7x $\frac{1}{2}$ " |

## SHAKEPROOF WASHERS (E)

| Stock No. | Quantity | Size  |
|-----------|----------|-------|
| 44-560    | 100      | 6-32  |
| 44-561    | 90       | 8-32  |
| 44-562    | 80       | 10-32 |

## Shoulder Fiber Washers (F)

| Stock No. | Quantity | Size                              |
|-----------|----------|-----------------------------------|
| 44-581    | 90       | $\frac{1}{2}$ " x $\frac{1}{2}$ " |
| 44-582    | 75       | $\frac{3}{4}$ " x $\frac{1}{2}$ " |
| 44-583    | 50       | $\frac{1}{2}$ " x $\frac{3}{4}$ " |

**RADIO HARDWARE IN ENVELOPES**  
When ordering envelopes, change prefix number from 44 to 45. Thus 44-510 would become 45-510. **EACH ENVELOPE. 9c.**

## HANDY HARDWARE ASSORTMENTS



## ALL-PURPOSE ASSORTMENT

An indispensable item for the serviceman. Contains 12 compartments containing assorted machine screws, nuts, spade bolts, self-tapping screws, rubber grommets, knob set screws, rivets and eyelets, lugs, washers, etc. 5 lbs. **\$2.56** 44-300. NET.

## FIBER WASHERS

A large variety of shouldered and plain fiber washers useful to every Radio Experimenter and Serviceman. Assortment of 100 washers per box. Shpg. wt. 1 lb. **44-320. PER BOX. 32c**

## INSULATING SPACERS

For raising subpanels, chassis, condensers, etc. Made of phenolic, a molded phenolic with excellent dielectric qualities. Wt. 6 oz.

| No.    | Size                 | Quantity | NET |
|--------|----------------------|----------|-----|
| 44-376 | $\frac{1}{4}$ " LONG | 12       | 21c |
| 44-381 | $\frac{1}{2}$ " LONG | 12       | 24c |
| 44-386 | $\frac{3}{4}$ " LONG | 12       | 26c |
| 44-391 | 1" LONG              | 12       | 31c |

## CABLE CLAMPS

The  $\frac{1}{2}$ " size fits  $\frac{1}{4}$ " cable;  $\frac{1}{2}$ " size fits  $\frac{1}{2}$ " cables. Made of extra heavy-gauge plated metal. Have a No. 6 mounting hole. 44-361.  $\frac{1}{2}$ " long. Per 10 **10c** 44-371. 1" long. Per 10 **10c**

## Miscellaneous Hardware

Wing nuts and cap nuts are bright finish. For dressing up appearance of all apparatus. Lock washers are spring metal.

| Size              | Wing-nuts | 12 FOR | Cap nuts | 12 FOR | Lock washers | 24 FOR |
|-------------------|-----------|--------|----------|--------|--------------|--------|
| 6-32              | 44-201    |        | 44-231   |        | 44-251       |        |
| 8-32              | 44-206    |        | 44-236   |        | 44-256       |        |
| 10-32             | 44-211    |        |          |        | 44-261       |        |
| $\frac{1}{4}$ -20 | 44-216    | 39c    |          |        |              | 7c     |

## "PARKERIZED" STEEL MACHINE SCREWS

Standard thread. "Parkerized" rust-proof sturdy steel screws.

## 6-32 ROUND HEAD

| No.    | Length          | Gross |
|--------|-----------------|-------|
| 44-701 | $\frac{1}{2}$ " | 22c   |
| 44-706 | $\frac{3}{4}$ " | 20c   |
| 44-711 | 1"              | 20c   |
| 44-716 | $\frac{1}{2}$ " | 27c   |
| 44-721 | $\frac{3}{4}$ " | 29c   |
| 44-726 | 1"              | 29c   |
| 44-731 | $\frac{1}{2}$ " | 45c   |
| 44-736 | $\frac{3}{4}$ " | 57c   |

## 8-32 ROUND HEAD

| No.    | Length          | Gross |
|--------|-----------------|-------|
| 44-751 | $\frac{1}{2}$ " | 28c   |
| 44-756 | $\frac{3}{4}$ " | 37c   |
| 44-761 | 1"              | 37c   |
| 44-766 | $\frac{1}{2}$ " | 65c   |

## METAL TAPPING SCREWS

Cut their own threads in metal. They are turned in. For all sheet metal up to No. 16 gauge.

## SIZE 6

| No.    | Gross | Loth.           | No.    | Gross |
|--------|-------|-----------------|--------|-------|
| 44-801 | 29c   | $\frac{1}{2}$ " | 44-826 | 33c   |
| 44-811 | 31c   | $\frac{3}{4}$ " | 44-831 | 35c   |
| 44-821 | 32c   | 1"              | 44-836 | 37c   |
| 44-831 | 33c   | $\frac{1}{2}$ " | 44-841 | 39c   |

## PHILLIPS MACHINE SCREWS

Phillips round head type; cross-slots; "Parkerized" rust-proof steel; in standard sizes. Av. wt. 6 oz.

## 6-32 ROUND HEAD

| No.    | Length          | Gross |
|--------|-----------------|-------|
| 44-851 | $\frac{1}{2}$ " | 41c   |
| 44-856 | $\frac{3}{4}$ " | 43c   |
| 44-861 | 1"              | 45c   |
| 44-866 | $\frac{1}{2}$ " | 50c   |

## 8-32 ROUND HEAD

| No.    | Length          | Gross |
|--------|-----------------|-------|
| 44-871 | $\frac{1}{2}$ " | 43c   |
| 44-876 | $\frac{3}{4}$ " | 45c   |
| 44-881 | 1"              | 53c   |

## ORNAMENTAL HEAD SCREWS

Rosette head; statutory bronze finish. Size 6-32 ( $\frac{1}{2}$ " head dia.).

| No.    | Length          | Doz. |
|--------|-----------------|------|
| 44-886 | $\frac{1}{2}$ " | 10c  |
| 44-891 | $\frac{1}{4}$ " | 10c  |
| 44-896 | $\frac{1}{2}$ " | 11c  |

## HEXAGONAL NUTS

Standard  $\frac{1}{2}$ " nuts, machined steel well plated; rust-proof.

| Size | Per Gross  |
|------|------------|
| 6-32 | 44-912 26c |
| 8-32 | 44-917 26c |

## INSULATED STAPLES

Saddle-type, insulated staple 100 to the box. Slip-proof Fiber insulation. Shpg. wt. 2 lbs. **29c** Per Box of 100 **12c** 10 Boxes For **\$1.08**

## NAIL-IT INSULATED STAPLES

New design. Saves finger-drives like a nail. Won't bend. Locked-in insulation. Copper finish. **52-031.** Per Box of 50 **7c** 20 Boxes For **\$1.12**

## PUSH-CLIPS

For securely fastening cords from radius, wall or floor panels to molding or baseboard. Easy to install. No tools needed. Wt. 3 oz. **52-020. Brown.** **52-021. Ivory.** **52-022. Clip.** 10 Cards For **72c**

## 1000 PIECE ASSORTMENT

A bargain assortment of radio hardware. Contains rivets, grommets, nuts, screws, washers, brackets, soldering lugs, etc., 1,000 pieces of useful hardware for servicing, net-building, and all other needs. 4 lbs. **\$1.35** 44-315. NET.



## SOLDERING LUGS

Quality soldering lugs. All types and shapes. Lasting connection. 44-426 takes No. 10 size screw. 44-431 takes  $\frac{1}{2}$ " size screw. Rest take 6-32 and 8-32 size screws.

| No.    | Fig. | No.    | Fig. |
|--------|------|--------|------|
| 44-401 | 1    | 44-421 | 5    |
| 44-406 | 2    | 44-426 | 4    |
| 44-416 | 4    | 44-431 | 4    |

Per Pkg. of 100. **25c** NET.

## JUMBO SHAKEPROOF SOLDER LUGS

Cadmium-plated soldering lugs with  $\frac{1}{2}$ " hole. Ideal for auto aerial connections. 44-941. Per 12. **8c** 44-942. Per Gross. **85c**

## SHAKEPROOF HARDWARE

Sturdy lugs and washers that lock in position. Cannot come loose. **Lug No. Washer** 44-921 For 6-32 Screw 44-931 44-926 For 8-32 Screw 44-936 **PER GROSS 29c** **LUGS OR WASHERS 29c**



# NEUTRALIZING TOOLS • TEST LEADS

## ALIGNING AND NEUTRALIZING TOOLS

### ICA NEUTRALIZING & ALIGNING KITS

#### DELUXE MODEL

Aligns almost all receivers. 14 parts cover multiple functions. These units telescope into each other forming 9 separate tools. In a handy leatherette case including: screwdriver with flexible shaft for hard-to-reach spots; "magic" alignment tool; alligator side wrench; 6" insulated screwdriver with metal nib; 1/4" and 1/2" nut wrench; 1/4" insulated square nut wrench; 1/4" hex metal side wrench; 2 1/2" insulated screwdriver with metal nib; 1/4" hex slotted insulated wrench screwdriver; 3/8" hex insulated nut wrench; 5" and 6" insulated screwdrivers. Supplied with leatherette case. Shpg. wt. 1 lb. **\$4.41**

#### STANDARD MODEL KIT

14 tools telescope into each other to form only 4 units. Includes 1/4" hex wrenches, 3/4" and 1/2" nut wrenches, 2 1/2", 5" and 6" screwdrivers, alligator wrench and various neutralizing tools. In vest-pocket case. 8 oz. **\$3.82**



**Non-Metallic Adjustable Neutralizing Tool.** Made of tough plastic, no metal parts. Screwdriver at one end and hex socket at other. Fully shock-proof. 4 oz. **\$4.41**  
**42-104.** Extends 6" to 11". **NET \$4.41**  
**42-105.** Extends 10" to 18". **NET \$5.72**

#### 42-170. Non-Metallic Screwdriver.

For aligning trimmer cond. in r.f. circuits. Made of 1/4" polished bakelite rod 6" long. 4 oz. **NET \$4.41**

**42-171. Double-Edged Screwdriver.** Made of durable 1/4" bakelite with blades at both ends. 7" long. 3 oz. **NET \$2.95**



**42-145. Alignment Tool.** Has specially designed metal clip for neutralizing air trimmer condensers on all model sets, including late Philco. Of narrow fibre rod. Dia. is 1/16". Length, 6". 3 oz. **NET \$3.82**



**Insulated Hex Wrench.** Hex broaching runs entire length of wrench. End may be cut off when worn. Fibre rod. Fits 1/4" nut. 3 oz. **\$4.41**  
**42-150.** 6 INCH. **17¢** | 8 INCH. **20¢**

## "MAKE-UR-OWN" TEST LEAD ACCESSORIES

The following popular assortment of high-quality test-lead accessories have been selected for those wishing to assemble their own prods for special applications. Test prods selected are screw-on solderless type and are, therefore, quickly and very easily interchangeable after assembly.

### AMPHENOL CO-AXIAL CABLE TEST PROD WIRE

Transmits RF and AF currents with minimum loss. Extremely flexible, bends on 1" radius. Made of 1/4" polystyrene beads strung on No. 22 stranded copper wire. Low capacity. Shielded. Lacquered cotton braid covering. Diameter is only 1/4". For signal generators, etc. **\$9.30**. Per foot. **NET \$1.32**  
**42-301.** 3 Foot Length. 6 oz. **NET \$1.32**

### SOLDERLESS TEST PRODS

Needle point test prod with insulated plastic handle threaded to take the solderless plug chuck. 5/16" dia; 3/4" dia. Shipping wt. 8 oz. **\$4.41**  
**42-110.** Red. **\$4.41**  
**42-111.** Black. **EACH \$2.95**

### 5-IN-1 ALIGNMENT TOOL



A handy alignment tool kit that will serve innumerable uses. Consists of 1/4" and 1/2" nut wrenches, miniature blade and full-size screwdriver with pocket clips. Shpg. wt. 8 oz. **\$8.82**  
**42-125. NET \$8.82**

### 4-IN-1 ALIGNMENT TOOL



Combines in one fountain pen size tool. A Serviceman's necessities—1/4" and 1/2" nut wrenches, neutralizing screwdriver and key slot grip. Insulated handle with pocket clip. 6" long. 8 oz. **\$9.41**  
**42-126. NET \$9.41**  
**42-127.** Croclic attachment. 4 oz. **\$17.41**  
**42-128.** Molec attachment. **EACH \$17.41**

**42-135. Alignment Wrench.** Handy aligning tool for adjusting air trimmers and coil cores. 1/4" dia. Plastic rod, 8 1/2" long. Has hexagon wrench at one end and shaped hook at other. For RCA and Philco. 5 oz. **\$8.82**  
**NET \$8.82**

**42-140. Low Capacity Aligner.** Made of tough bone fibre. 1/4" dia. One end has screwdriver for adjusting trimmers and padding condensers; the other end has a recessed screwdriver for adjusting permeability tuned circuits. Ideal for aligning push-button sets. Shpg. wt. 5 oz. **NET \$4.41**

### NE-O-LITE NEON TATTELITE

Pocket neon tester. Indicates voltages from 90 volts DC and 60 volts AC to 500 volts AC or DC. Tests for live lines, grounded lines, open circuits, shorts, polarity and whether AC or DC or RF. Blown fuses, defective spark plugs. Molded tenite body, color-coded leads. Locates shorts and voltage failures. Insulated test leads prevent accidental shocks. With neon lamp. Handy pocket set. Full directions. **\$9.41**  
**78-055. NET \$9.41**

### TROUBLE LIGHT



Provides light where you want it. Fountain-pen size. For 110 volts AC or DC. With bulb, and 5/16" foot cord. Wt., 1 lb. **\$9.41**  
**42-120. NET \$9.41**

### BELDEN "LIMP" TEST PROD WIRE

Has extra heavy rubber wall. For use with analyzers, oscillators, therapeutic apparatus, and high-voltage testing equipment. Voltage breakdown, 10,000 V. at 60 cyc. 18 strand, (55x36) twisted wire. Q. D. 23 AWG. **\$3.00**  
**47-800.** Black. **PER FOOT \$3.00**  
**47-810.** Red. **500 FEET \$9.96**

### CORD TIPS FOR TEST PRODS

Insulated-sleeve type, standard cord tip. Fits any standard phone-tip jack. Screw-on connector makes good contact. **\$1.00**  
**41-250.** Red. **EACH \$1.00**  
**41-251.** Red. **12 FOR \$1.00**  
**41-252.** Black. **EACH \$1.00**  
**41-256.** Black. **12 FOR \$1.00**

## ICA TEST LEADS

### HEAVY DUTY LAB MODEL PRODS



Heavy duty test prods with removable phone-needle chuck type prods for penetrating wire lead insulations; insulated phone tip terminals; 6" phenolic handles (one each red and black); and 50" rubber covered kinkless leads. Handles knurled and shaped for positive finger grip. Also with lug, clip, or non-insulated phone tip terminals. Wt., 1 lb. **\$9.41**  
**42-200.** ICA 300. **PER PAIR \$9.41**  
**42-201.** ICA 391. **Spade Terminals \$8.20**  
**42-202.** ICA 388. **Alligator Terminals \$8.82**  
**42-255.** ICA 362. **Non-Insulated Phone Tip Terminals. PER PAIR \$8.20**

### 5,000 VOLT PRODS

Similar to heavy duty lab model prods described above, except have 4" fenolic handles and non-removable chuck. Insulated for use on circuits carrying up to 5,000 volts. Shpg. wt., 10 oz. **\$9.41**  
**42-210.** ICA 382. **Phone Tips. \$9.41**  
**42-211.** ICA 381. **Spade Terminals. \$9.41**  
**42-212.** ICA 379. **Alligator Terminals. PAIR \$6.50**

### ALL-PURPOSE TEST PROD KIT

Have pointed phone tip prods; 6" fenolic handles (one each red and black); 50" rubber-covered kinkless wire leads; and banana plug terminals. Also includes a pair of spade lug, phone tip, and alligator clip terminals which interchangeably fit onto banana plug terminals as required. Wt., 1 lb. **\$1.47**  
**42-220.** ICA 312. **NET \$1.47**  
**42-221.** ICA 313. **With Fixed-End Phone Tips. \$7.30**  
**42-222.** ICA 315. **With Fixed-End Alligator Clips. As above, but without the interchangeable feature. NET \$8.20**

### UNBREAKABLE TEST PRODS

Have pointed phone tip prod; phone tip terminals; 5" nickel plated solid brass live rubber covered handles; 50" rubber covered kinkless leads. 10 oz. **\$9.41**  
**42-230.** ICA 332. **With Standard Phone Tips. NET \$9.41**  
**42-231.** ICA 331. **With Insulated Phone Tips. NET \$6.80**

### WESTON TYPE PRODS

High-grade Weston type leads for all test equipment. 5" handles of insulating material, with flexible rubber wire. Sharp-pointed tip is threaded and screws into handle. Molded grips with phone tips and set screws for easy removal of wire. Length of leads and handles is 55". Properly soldered connections and good quality. Shpg. wt., 10 oz. **\$1.03**  
**ICA 373. NET \$1.03**

### GENERAL DUTY TEST PRODS

Have standard phone tip prods; standard phone tip terminals; 2 1/2" machined plastic prod handles (one each red and black); and 34" wax impregnated cotton braid covered flexible wire leads. A high grade set of test prods for all around everyday use. Available with phone tip or spade type terminals as listed below. Short handles facilitate work in limited space. **\$4.41**  
**42-250.** ICA 368. **Phone tip terminals. \$4.41**  
**42-251.** ICA 367. **Spade terminals. \$4.41**  
**PER PAIR \$4.41**

# Values in POPULAR TOOLS

## ALL-PURPOSE CIRCLE CUTTERS



Designed to cut large holes accurately and quickly in wood, bakelite, hard rubber, tin, sheet metal, etc. May be used in slow-speed drill press or ordinary hand-brace. Type C is designed for heavy-duty work. Type A is a standard professional cutter, heavy bar construction; Junior type is for light work on softer materials. All cutter blades removable. Available only on priority.

**45-600, Type A. Professional model. High quality.**

Cuts clean holes  $\frac{1}{4}$ " to 4" in diameter in **\$1.35**

hardened steel. Cuts clean holes  $\frac{1}{4}$ " to 4" in diameter in wood, bakelite, wood, etc. Shpg. wt., 2 lbs. NET.....

**45-601, Junior. Not illustrated (similar to Fig. A). Cuts holes  $\frac{1}{4}$ " to  $2\frac{1}{4}$ " in diameter. Suitable for light duty cutting in panels and chassis. Shpg. wt., 1 lb. NET.....**

**45-602, Type C. Square Shank. Heavy-duty cutter of hardened steel. Cuts holes  $\frac{1}{4}$ " to  $2\frac{1}{4}$ " in diameter in bakelite or metal panels. Shpg. wt., 2 lbs. NET.....**

**45-603, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-604, Type B.  $\frac{1}{4}$ " to 8" Circle Cutter. All-purpose cutter of high-grade hardened steel. Fits brace or chuck. Cuts metal, etc. Shpg. wt., 2 lbs. NET.....**

**45-610, Cutter Blades. Extra blade for Type A and C cutters listed above. Made of finest tool steel, hardened for long wear. Shpg. wt., 4 oz. NET.....**

**45-605, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-606, Type B.  $\frac{1}{4}$ " to 8" Circle Cutter. All-purpose cutter of high-grade hardened steel. Fits brace or chuck. Cuts metal, etc. Shpg. wt., 2 lbs. NET.....**

**45-610, Cutter Blades. Extra blade for Type A and C cutters listed above. Made of finest tool steel, hardened for long wear. Shpg. wt., 4 oz. NET.....**

**45-607, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-608, Type B.  $\frac{1}{4}$ " to 8" Circle Cutter. All-purpose cutter of high-grade hardened steel. Fits brace or chuck. Cuts metal, etc. Shpg. wt., 2 lbs. NET.....**

**45-610, Cutter Blades. Extra blade for Type A and C cutters listed above. Made of finest tool steel, hardened for long wear. Shpg. wt., 4 oz. NET.....**

**45-609, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-601, Junior. Not illustrated (similar to Fig. A). Cuts holes  $\frac{1}{4}$ " to  $2\frac{1}{4}$ " in diameter. Suitable for light duty cutting in panels and chassis. Shpg. wt., 1 lb. NET.....**

**45-602, Type C. Square Shank. Heavy-duty cutter of hardened steel. Cuts holes  $\frac{1}{4}$ " to  $2\frac{1}{4}$ " in diameter in bakelite or metal panels. Shpg. wt., 2 lbs. NET.....**

**45-603, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-604, Type B.  $\frac{1}{4}$ " to 8" Circle Cutter. All-purpose cutter of high-grade hardened steel. Fits brace or chuck. Cuts metal, etc. Shpg. wt., 2 lbs. NET.....**

**45-610, Cutter Blades. Extra blade for Type A and C cutters listed above. Made of finest tool steel, hardened for long wear. Shpg. wt., 4 oz. NET.....**

**45-605, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-606, Type B.  $\frac{1}{4}$ " to 8" Circle Cutter. All-purpose cutter of high-grade hardened steel. Fits brace or chuck. Cuts metal, etc. Shpg. wt., 2 lbs. NET.....**

**45-610, Cutter Blades. Extra blade for Type A and C cutters listed above. Made of finest tool steel, hardened for long wear. Shpg. wt., 4 oz. NET.....**

**45-607, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-608, Type B.  $\frac{1}{4}$ " to 8" Circle Cutter. All-purpose cutter of high-grade hardened steel. Fits brace or chuck. Cuts metal, etc. Shpg. wt., 2 lbs. NET.....**

**45-610, Cutter Blades. Extra blade for Type A and C cutters listed above. Made of finest tool steel, hardened for long wear. Shpg. wt., 4 oz. NET.....**

**45-609, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-601, Junior. Not illustrated (similar to Fig. A). Cuts holes  $\frac{1}{4}$ " to  $2\frac{1}{4}$ " in diameter. Suitable for light duty cutting in panels and chassis. Shpg. wt., 1 lb. NET.....**

**45-602, Type C. Square Shank. Heavy-duty cutter of hardened steel. Cuts holes  $\frac{1}{4}$ " to  $2\frac{1}{4}$ " in diameter in bakelite or metal panels. Shpg. wt., 2 lbs. NET.....**

**45-603, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-604, Type B.  $\frac{1}{4}$ " to 8" Circle Cutter. All-purpose cutter of high-grade hardened steel. Fits brace or chuck. Cuts metal, etc. Shpg. wt., 2 lbs. NET.....**

**45-610, Cutter Blades. Extra blade for Type A and C cutters listed above. Made of finest tool steel, hardened for long wear. Shpg. wt., 4 oz. NET.....**

**45-605, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-606, Type B.  $\frac{1}{4}$ " to 8" Circle Cutter. All-purpose cutter of high-grade hardened steel. Fits brace or chuck. Cuts metal, etc. Shpg. wt., 2 lbs. NET.....**

**45-610, Cutter Blades. Extra blade for Type A and C cutters listed above. Made of finest tool steel, hardened for long wear. Shpg. wt., 4 oz. NET.....**

**45-607, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-608, Type B.  $\frac{1}{4}$ " to 8" Circle Cutter. All-purpose cutter of high-grade hardened steel. Fits brace or chuck. Cuts metal, etc. Shpg. wt., 2 lbs. NET.....**

**45-610, Cutter Blades. Extra blade for Type A and C cutters listed above. Made of finest tool steel, hardened for long wear. Shpg. wt., 4 oz. NET.....**

**45-609, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-601, Junior. Not illustrated (similar to Fig. A). Cuts holes  $\frac{1}{4}$ " to  $2\frac{1}{4}$ " in diameter. Suitable for light duty cutting in panels and chassis. Shpg. wt., 1 lb. NET.....**

**45-602, Type C. Square Shank. Heavy-duty cutter of hardened steel. Cuts holes  $\frac{1}{4}$ " to  $2\frac{1}{4}$ " in diameter in bakelite or metal panels. Shpg. wt., 2 lbs. NET.....**

**45-603, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-604, Type B.  $\frac{1}{4}$ " to 8" Circle Cutter. All-purpose cutter of high-grade hardened steel. Fits brace or chuck. Cuts metal, etc. Shpg. wt., 2 lbs. NET.....**

**45-610, Cutter Blades. Extra blade for Type A and C cutters listed above. Made of finest tool steel, hardened for long wear. Shpg. wt., 4 oz. NET.....**

**45-605, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-606, Type B.  $\frac{1}{4}$ " to 8" Circle Cutter. All-purpose cutter of high-grade hardened steel. Fits brace or chuck. Cuts metal, etc. Shpg. wt., 2 lbs. NET.....**

**45-610, Cutter Blades. Extra blade for Type A and C cutters listed above. Made of finest tool steel, hardened for long wear. Shpg. wt., 4 oz. NET.....**

**45-607, Type C. Round Shank. Same as Type C above, but with round shank for use in power drill chuck. Cuts holes from  $1\frac{1}{4}$ " to  $5\frac{1}{4}$ ". Shpg. wt., 2 lbs. NET.....**

**45-608, Type B.  $\frac{1}{4}$ " to 8" Circle Cutter. All-purpose cutter of high-grade hardened steel. Fits brace or chuck. Cuts metal, etc. Shpg. wt., 2 lbs. NET.....**

**45-610, Cutter Blades. Extra blade for Type A and C cutters listed above. Made of finest tool steel, hardened for long wear. Shpg. wt., 4 oz. NET.....**

## MISCELLANEOUS TOOLS AND PUNCHES



**45-630, FIG. A. REAMER.** Tempered carbon-steel reamer. Drop-forged hardened shank has "T"-type handle for easy grip. For enlarging holes in wood, bakelite, etc. Overall length,  $5\frac{1}{4}$ " taper,  $3\frac{1}{4}$ ". Small end diameter,  $\frac{1}{4}$ "; large end diameter,  $\frac{1}{2}$ ". Shpg. wt., 1 lb.

**NET.....**

**46-150, FIG. B. TAPERED REAMER.** Large tapered reamer for use with hand brace. Made of hammer-forged alloy steel. Properly ground edge assures quick, easy reaming. Overall length,  $5\frac{1}{4}$ " taper,  $4\frac{1}{4}$ ". Small end diameter,  $\frac{1}{4}$ "; large end dia.,  $\frac{1}{2}$ ". Shpg. wt., 1 lb.

**NET.....**

**46-151, FIG. C. COUNTER-SINK.** Rose pattern for use with hand brace on wood or soft metal.  $\frac{1}{2}$ " size. Durable milled teeth.  $3\frac{1}{4}$ " long. Shpg. wt., 1 lb.

**NET.....**

**46-152, FIG. D. DIVIDERS.** Made in U.S.A. Sturdy spring-action dividers. Constructed of excellent tool steel, correctly hardened and tempered. Precision ground. Length, 6"; maximum spread,  $6\frac{1}{4}$ ". Shpg. wt., 1 lb. NET.....

**96c**

**FIG. E. CHASSIS PUNCHES.** Cuts round hole in chassis by turning cap screw. Shpg. wt., 1 lb.

**46-170,  $\frac{1}{4}$ " NET.....**

**46-171,  $\frac{1}{2}$ " NET.....**

**46-172,  $\frac{3}{8}$ " NET.....**

**46-173,  $\frac{1}{2}$ " NET.....**

**46-174,  $\frac{3}{4}$ " NET.....**

**46-175,  $1\frac{1}{4}$ " NET.....**

**46-176,  $1\frac{1}{2}$ " NET.....**

**43-900, FIG. F. KRAETZER HAMMER.** Drives nails, tacks, etc. also pulls nails, removes staples. Alloy steel.  $9\frac{1}{4}$ " long. Shipping weight, 2 lbs.

**NET.....**

**65c**

## STEEL RULES—SLIDE RULES—MICROMETERS—WIRE GAUGES



**46-061, A. 6" Rule & Wire Gauge.** Stainless steel. Front graduated in 32nds and 64ths. Also B. & S. wire gauge. Back has decimal equivalents. For Nos. 8 to 20 wire. With case. NET.....

**25c**

**46-050, B. Micrometer.** Precision-built; accurate to  $1/1000$  of an inch. Hardened steel. Zero setting in zero. Standard 1" size. Wt. 8 oz. NET.....

**\$1.05**

**46-051,  $\frac{1}{2}$ " size. NET.....**

**53c**

**46-060, C. Drill and Wire Gauge.** A handy, accurate gauge of polished, tempered steel. Has index on the face for machine screw taps. Sizes are in decimal equivalents and number size. NET.....

**95c**

**MULTI-PURPOSE STEEL RULE**

**46-153, 6" 32nd and 64th scale, drill point gauge, square, bevel protractor, center finder, circle divider. 1 lb. NET.....**

**98c**

**46-061, A. 6" Rule & Wire Gauge. Stainless steel. Front graduated in 32nds and 64ths. Also B. & S. wire gauge. Back has decimal equivalents. For Nos. 8 to 20 wire. With case. NET.....**

**25c**

**46-050, B. Micrometer. Precision-built; accurate to  $1/1000$  of an inch. Hardened steel. Zero setting in zero. Standard 1" size. Wt. 8 oz. NET.....**

**\$1.05**

**46-051,  $\frac{1}{2}$ " size. NET.....**

**53c**

**46-060, C. Drill and Wire Gauge. A handy, accurate gauge of polished, tempered steel. Has index on the face for machine screw taps. Sizes are in decimal equivalents and number size. NET.....**

**95c**

**MULTI-PURPOSE STEEL RULE**

**46-153, 6" 32nd and 64th scale, drill point gauge, square, bevel protractor, center finder, circle divider. 1 lb. NET.....**

**98c**

**46-061, A. 6" Rule & Wire Gauge. Stainless steel. Front graduated in 32nds and 64ths. Also B. & S. wire gauge. Back has decimal equivalents. For Nos. 8 to 20 wire. With case. NET.....**

**25c**

**46-050, B. Micrometer. Precision-built; accurate to  $1/1000$  of an inch. Hardened steel. Zero setting in zero. Standard 1" size. Wt. 8 oz. NET.....**

**\$1.05**

**46-051,  $\frac{1}{2}$ " size. NET.....**

**53c**

**46-060, C. Drill and Wire Gauge. A handy, accurate gauge of polished, tempered steel. Has index on the face for machine screw taps. Sizes are in decimal equivalents and number size. NET.....**

**95c**

**MULTI-PURPOSE STEEL RULE**

**46-153, 6" 32nd and 64th scale, drill point gauge, square, bevel protractor, center finder, circle divider. 1 lb. NET.....**

**98c**

### MASTER STEEL TAPE RULE

**46-046, High-quality six-foot tempered steel rule. Etched figures. Black enamel finish steel case. 1 lb. NET.....**

**75c**

### COMBINATION STEEL RULE

**46-154, 12" etched-steel combination square. Graduated on both sides in 32nds, 16ths, and 8ths. Head has thumb-screw for positive locking. NET.....**

**83c**

### DIETZGEN SLIDE RULE

**45-870, 10" Mannheim type rule with A, B, C, D, E, F, G, H, and I scales. 18" page insert. Book and case. 1 lb. NET.....**

**98c**

## G.C. CABINET REPAIR KIT



Permits repair of scratches on any cabinet. Contains 9 shades of shellac sticks, bottles of light and dark oil stain, metal shading lacquer, polish, Magic Scratch Remover, alcohol lamp, spatula, brushes, steel wool, sandpaper, and wiping cloth. Shpg. wt., 4 lbs.

**43-115, NET.....**

**\$2.06**

## PHILLIPS OFFSET SCREWDRIVER

Combination offset screwdriver for Phillips No. 1 and No. 2 size wood or machine screws.  $4\frac{1}{4}$ " long overall. Alloy steel. Shpg. wt., 8 oz.

**45-835, NET.....**

**39c**

## HANDY TOOLS FOR THE RADIO SERVICEMAN



**Fig. A. PRES-TO-OILER.** Press on plunger to release one drop of oil. Prevents over-oiling and waste. Transparent fountain-pen reservoir holds oil supply. Shpg. wt., 8 oz.

**46-065, NET.....**

**47c**

**Fig. B. FLEXIBLE SHAFT SCREWDRIVER.** No more fumbling for those hard-to-reach spots. Flexible shaft and movable insulated guide do the trick with little or no difficulty.  $8\frac{3}{4}$ " long overall. 1 lb.

**46-070, NET.....**

**\$1.32**

**Fig. C. SCREW HOLDING CLIP.** Easily slipped over blade of screwdriver. Comes in three sizes to fit any screwdriver and any size or type wood or machine screw. 6 oz.

**46-075, PER SET OF 3, NET.....**

**10c**

**Fig. L. ELECTRIC RADIO TWEezer.** Finely tempered spring tweezers. For delicate work. Holds wires, nuts, screws, etc.

**46-095, NET EACH.....**

**25c**

**Fig. D. HANDY SCRATCH REMOVER.** Stick builds scratch to original level and polishes and seals. Shpg. wt., 6 oz.

**46-300, NET EACH.....**

**22c**

**Fig. E. END-WRENCH SET.** A handy end-wrench set of many uses. Cadmium plated. Wrenches are  $\frac{1}{4}$ "- $\frac{3}{8}$ ",  $\frac{3}{8}$ "- $\frac{1}{2}$ " and  $\frac{1}{2}$ " with alligator jaw. Shpg. wt., 1 lb.

**46-080, Set of 3 Wrenches, NET.....**

**12c**

**Fig. F. WALCO SCRATCH REMOVER.** Instantly removes unsightly scratches on radios or furniture. Merely brush over lightly. Reverses end of pen-shaped container has a special filler for staining. Unbreakable. Shipping weight, 6 oz.

**43-131, NET.....**

**29c**

**Fig. G. KNOB PULLER.** Easily removes all types push-on knobs. Prevents marring of panel or cabinet. Shpg. wt., 8 oz.

**46-077, NET.....**

**15c**

**Fig. H. Wire Stripper.** Has tempered steel cutting edge. Shpg. wt., 6 oz.

**46-083, NET.....**

**12c**

**Fig. I. 5-IN-1 WIRE STRIPPER, scraper, cutter, bender, and screwdriver. 6 oz.**

**43-905, NET.....**

**15c**

**Fig. J. KEYHOLE HACKSAW.** Cuts metal, wood, plaster, conduit, etc.  $7\frac{1}{4}$ ", 180-tooth blade. Shpg. wt., 1 lb.

**46-085, Frame and Blade, NET.....**

**29c**

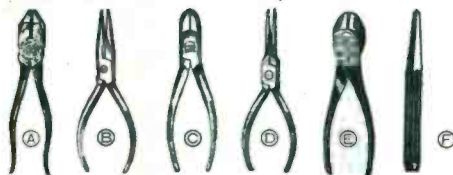
**46-086, Extra Blades, EACH.....**

**12c**



# Quality TOOLS FOR EVERY PURPOSE

## KRAEUTER "K" BRAND QUALITY TOOLS



Kraeuter "K" brand fine-quality tools are made to exacting specifications. Scientifically heat-treated and hardened in automatic furnaces to produce uniformity of temper and long life. Constructed of drop-forged high-quality tool-steel. Blue-tempered finish handles. Av. wt. 1 lb.

| No.     | Fig. | Description                              | EACH   |
|---------|------|------------------------------------------|--------|
| 46-408. | A.   | 8 1/2" Lineman's Side-Cutting Pliers     | \$1.52 |
| 46-409. | B.   | 6 1/2" Lineman's Side-Cutting Pliers     | .99    |
| 46-401. | C.   | 7" Needle-Nose Side-Cutting Pliers       | 1.10   |
| 46-402. | D.   | 7" Long-Nose Side-Cutting Pliers         | 1.55   |
| 46-403. | E.   | 5" Diagonal-Cutting Pliers               | .99    |
| 46-404. | F.   | 6" Diagonal-Cutting Pliers               | 1.22   |
| 46-410. | E.   | 6" Semi-Duck-bill Type Pliers            | 1.25   |
| 46-412. | F.   | 6 1/2" Heavy-duty Diagonal-Cutters       | 1.25   |
|         |      | Octagon Center Punch. 1/2" dia. x 4 1/2" | .29    |

## ACRO CHASSIS CRADLE

Permits locking any radio set or amplifier chassis in any position for circuit alignment, test, or replacement of parts. Prevents damage to tubes or other parts. Ideal for radio school instruction. Mechanical clamp holds chassis firmly in place. Adjustable base takes any size chassis up to 21" long. Made of cold-rolled heavy steel. Shpg. wt. 5 lbs.



86-030. NET.....\$3.50  
86-031. Extra set of clamps...\$2.45

## RADIO TOOL KIT

Handy assortment of 11 useful tools for servicemen or for radio-school use. Consists of: 3" and 5 1/2" screwdrivers, scriber, reamer, countersink, thin lock-nosed pliers, center punch, socket wrench set from 1/4" to 1/2" for hexagon and knurled nuts, and 1 hexagon nut wrenches from 1/4" to 1/2". All radio tools are those most frequently used.



Ideal for all phases of radio work. Shpg. wt., 2 lbs. \$2.25

## HANDY ALL-PURPOSE SCREWDRIVERS



43-800. Fig. A. Rustproof, tool-steel blade is accurately ground to fit screw slot. Slip-proof transparent amber handle and 3" blade. NET.....32c  
43-801. 6" Blade.....43c  
43-802. 8" Blade.....55c

43-835. Fig. E. SUNDT NEON "FIRE DEVIL." Fine quality screwdriver. Built-in neon tube in handle glows when electrical contact is made. Transparent handle, 1 1/4". Blade, 2 1/2". Insulated for 5000 volts. 24c

43-836. Handle, 3 1/4". Blade, 3 1/4". 15,000V. 7" overall...59c

43-860. Fig. F. 10,000 V. Insulated screwdrivers. Red and black composition handle. 5" insulated steel blade. NET.....19c

43-861. 6 1/2" blade. NET.25c

43-805. Fig. B. LIFE-TIME "STUBBY." Tempered high carbon crucible tool-steel blade, 1/2" x 1 1/4". Amberyl sure-grip handle is shock-proof. NET.....40c

43-850. Fig. G. Non-skid shock-proof, with ribbed point. Genuine Amberyl handle with clip. 3" blade. 10 FOR \$1.80. EACH.....20c

43-851. 2" blade. 10 FOR \$1.71. EACH.....19c

43-852. 1 1/2" blade. 10 FOR \$1.62. EACH.....18c

43-815. Fig. C. "HOLD-E-ZIE." New screwdriver with spring action gripper for working in awkward places. 3" tempered steel blade, sure-grip amber handle. NET.....42c

43-816. 4" blade. EA.....56c  
43-817. 6" blade. EA.....59c  
43-818. 10" blade. EA.....59c

43-825. Fig. D. "PHILLIPS" SCREWDRIVER. Used for recessed head screws; necessary for servicing many new machines. Has standard wood handle. 3" blade. For No. 4 size and smaller. NET.....30c

43-826. 4". No. 5 to No. 9 sizes. NET.....31c

43-827. 6". No. 10 to No. 16 sizes. NET.....38c

43-870. Fig. H. Narrow blade screwdrivers. For set-screw knobs and balancing trimmers. Overall length, 4 1/2". Hardened 2 1/4" blade. Amber handle with clip. 12c

43-871. 6 1/2" blade, less clip. 10 for \$1.35. EACH.....15c

Average shipping weight of above screwdrivers. 8 oz.

## WALSCO STAPLE DRIVER AND ACCESSORIES



Automatically staples wires in corners, behind pipes, into moldings, etc. Works also in hard surfaces, such as plaster, mortar and soft concrete. Staple depth can be regulated to avoid damaging wire insulation. Holds 23 staples; for wire up to 1/4" in diameter. Easily loaded. Trigger-operated feeding mechanism. With box of staples. Useful for general stapling, sign-posting, refrigeration gasket work, etc. Indispensable for Radio or PA Servicemen. Wt., 2 lbs.

43-720. Tool Finish Model. NET.....\$3.33  
43-721. Deluxe Chromium-Finished Model. NET.....\$4.18  
43-722. Steel Staples for above. Covered inside with insulating lacquer. Box contains 250 staples in 10 strips of 25 staples each. Brown finish. Box of 250. NET.....29c  
43-723. Box of 1000 Staples. NET.....95c  
43-726. Leather Carrying Case for Stapler. NET.....\$1.25

## 3" STEEL BAR-VISE



Heavy-duty tool-steel bar-vise. Has outstanding features such as locking-bolt with swivel handle which locks vise in any position. Tempered pipe-jaws will not distort pipe. Has die-cut removable corrugated parallel-facings. With cut-off tool. Jaw width, 3" open to 3 1/4". Pipe capacity: 1/4" to 1 1/2". Shpg. wt., 15 lbs. 46-023. NET.....\$2.95

## AC-DC ELECTRIC SPEED-DRILL



This rugged electric speed-drill is light and easy to handle. Sturdy chuck-assembly holds up to 1/2" drills. Handle has thumb-controlled switch. High-speed drills can be used. 1500 R.P.M. Drills 1/4" for corners. For 110 V. AC or DC. With 7 foot cord. Shpg. wt., 4 1/2 lbs. 46-005. NET.....\$8.25

## RADIO TAP, DRILL AND DIE SET



3 taps with drills for 4/36, 6/32, 8/32 threads. Three 1" dia. dies for cutting threads. Die stock and adjustable tap wrench. Sturdy wood case measures 11 1/2 x 3 1/2 x 1 1/2". 3 lbs. 46-025. NET.....\$1.95

## STURDY HAND DRILL



Sturdy, exceptionally well balanced hand drill with 1/2" hardened chuck jaws which will take up to 1/2" drills. Solid metal frame. Beautifully finished hardwood handle has hollow top for storing extra drills. 3 lbs. 46-030. NET.....\$1.15

## ASSORTED DRILL SET

9 carbon steel drills ranging from 1/16" to 3/8" sizes in 1/16" graduations. 10 oz. \$1.10  
46-032. NET.....\$1.10

## AUTOMATIC WIRE STRIPPER

A new sensational development in wire strippers. Pocket size, hand operated. Fast (up to 1000 wires per hour), positive acting. Works on wire ends or any place along wire. Does a clean job without damage to any kind of wire, either stranded or solid. Shpg. wt., 2 lbs.



46-003. Model 733. Automatic stripper for sizes 12 to 20 wire. 46-004. Model 733A. For sizes 14 to 24 wire. NET EACH.....\$3.53

Also available for 8-10 and 10-18 wire; and for aviation wire. Write for prices.

## VACO SCREWDRIVER KIT

FOR PHILLIPS TYPE SCREWS



Kit of five screwdrivers for Phillips screws. Amberyl shock and break-proof handles.

| Type | Size   | Blade Size    | Fit Screws        |
|------|--------|---------------|-------------------|
| P10  | 5 1/2" | 1/2" x 3"     | No. 4 and smaller |
| P20  | 8 1/2" | 1/2" x 4 1/4" | No. 5 to 9        |
| P30  | 10"    | 1/2" x 6"     | No. 10 to 16      |
| P50  | 3 1/4" | 1/4" x 1 1/4" | No. 5 to 9        |
| P60  | 3 1/4" | 1/4" x 1 1/4" | No. 4 and smaller |

43-880. Complete Kit. NET.....\$2.35

# SOLDERING IRONS & ACCESSORIES

## LENK QUALITY BLOW TORCHES



**43-701. Fig. B. Number 66 double-barrel type Blowtorch.** Uses ordinary alcohol to produce intense flame. Entirely automatic, no pumping or blowing necessary. Leak and evaporation proof. Cap prevents evaporation. Handy size:  $6\frac{1}{2}'' \times 2\frac{1}{4}'' \times 1\frac{1}{4}''$ . Shpg. wt., 1 lb. **NET \$1.35**

**43-700. Fig. A. No. 104. Gasoline blowtorch.** Flame-control and shut-off valve eliminate evaporation of fuel and loss of pressure. Extremely simple to operate. Control regulates flame size. Fool-proof design and sturdy construction; leak-proof and non-clogging; has self-cleaning orifice. Produces a 2000° F. flame. Generates quickly from asbestos-lined drip-cup. Height  $7\frac{1}{2}''$ ; diameter at base  $3''$ ; capacity  $\frac{1}{2}$  pint. Shpg. wt., 2 lbs. **NET \$1.85**

**43-702. Fig. B. No. 24 Blowtorch.** This efficient torch is entirely automatic in operation. Uses alcohol for fuel. Similar to No. 43-701 but slightly lighter in weight. Made of heavily-plated metal. Solid leakproof case. Has copper heat conductor. Size,  $5\frac{1}{2}''$ . Shpg. wt., 2 lbs. **NET \$99¢**

## KESTER SOLDERS

Compounded of the highest grade tin and lead. Flux filling assures easy flow. Standard 20% tin—80% lead alloy. Aluminum solder absolutely best aluminum.



| Quantity    | ROSIN CORE |        | ACID CORE |        | ALUMINUM |     |
|-------------|------------|--------|-----------|--------|----------|-----|
|             | No.        | NET    | No.       | NET    | No.      | NET |
| 3 oz. roll  | 46-900     | 17¢    | 46-905    | 17¢    | 46-910   | 17¢ |
| 1 lb. spool | 46-901     | 17¢    | 46-906    | 17¢    | 46-911   | 17¢ |
| 5 lb. spool | 46-902     | \$3.00 | 46-907    | \$3.00 |          |     |

## SOLDERING PASTE



An improved type soldering paste. Does a clean, non-corrosive job of soldering. Uniform quality. Always dependable.

**46-915. PER TIN... 12¢**  
**10 FOR... \$1.08**

## TINNING BLOCK

Cleans and "tins" soldering irons or coppers very quickly. Replaces ordinary salammoniac. Insures solid joints.



**46-920.  $\frac{1}{4}$  lb. NET... 15¢**  
**46-921.  $\frac{1}{2}$  lb. NET... 25¢**  
**46-922. 1 lb. NET... 44¢**

## SOCKET WRENCH SETS



### SPIN-TYPE WRENCHES

Sockets of hardened tool steel. Shanks of rust-proof steel with ribbed wooden handles. Shpg. wt. each, 8 oz. Set of six wrenches, 3 lbs. **NET \$22.00**

| Nut Size | 45-700 | 45-720 | 45-750 |
|----------|--------|--------|--------|
| 6"       | 45-701 | 45-721 | 45-751 |
| 8"       | 45-702 | 45-722 | 45-752 |
| 10"      | 45-703 | 45-723 | 45-753 |
| 12"      | 45-704 | 45-724 | 45-754 |
| 14"      | 45-705 | 45-725 | 45-755 |

**NET EACH \$2.00**

**45-710. Set of 6—6" wrenches... \$1.16**  
**45-730. Set of 6—8" wrenches... 1.36**  
**45-760. Set of 6 offset wrenches... 1.36**

## "VICTORY" SOLDER

Available Without Priority

A new rosin-core solder without priority. Contains 17% tin. Easy melting, will work with even a low wattage iron. **46-980. 1 lb. spool. NET \$1.16**  
**46-981. 5 lb. spool. NET \$1.95**

## PRODUCTION SOLDER

High-quality rosin-core solder.  $\frac{1}{16}$ " dia. For production line use. Contains 40% tin, 60% lead mixture. Supplied only on spools containing approximately 20 lbs. Weight may vary a few pounds either way. Available only on order with priority rating. **46-975. Per lb. NET... 60¢**



## ICA SOLDERING IRONS

Element is of the highest quality resistance wire. Will heat in three minutes. Handle remains cool. Plunger tip is easily removed. Stand supplied. For 115 v. AC or DC operation.

**46-635. 60 Watt. A medium weight iron for most encountered types of work.  $\frac{1}{16}$ " tip. Shpg. wt., 2 lbs. NET \$2.94**  
**46-636. 85 Watt. A good general-purpose iron.  $\frac{1}{16}$ " tip. Shpg. wt., 2 1/2 lbs. NET \$3.82**  
**46-637. 115 Watt. Heavy Duty type; has  $\frac{1}{8}$ " adjustable plunger type tip. \$4.41**

## SOLDERING IRON TIPS

High quality replacement plunger type copper tips. Fit all standard irons. Shpg. wt.,  $\frac{1}{2}$  lb.

**Stock No. Size NET EA.**  
**46-645  $\frac{1}{16}$ " \$2.24**  
**46-646  $\frac{1}{8}$ " \$3.34**

## MAGIC STYLUS SOLDERING PENCIL

Ideal for soldering small parts in hard-to-get-at corners. Heats quickly. Insulated handle with cork finger guard. With 5 ft. cord. Underwriters' Approved. Shpg. wt., all types, 1 lb.

**46-500. 110 Volt AC or DC Type. \$8.00**  
**46-501. 6 Volt DC Model. \$8.00**  
**(Storage Battery Type.) EACH \$8.00**

## DRAKE HEAT CONTROLS

Keeps iron heated to proper temperature. Reduces operating cost. Dull nickel finish. Shipping weight, 3 lbs.



**46-543. Type 300H. NET \$2.65**

## DRAKE SOLDERING IRONS



### DELUXE MODELS

High quality Underwriters' Inspected Irons. Finest grade nichrome wire element. Copper tips are bright dipped to resist corrosion. Cooling fan provides rapid heat dissipation. With 5 foot heater cord, plug, and 7' stand. For 110 V. AC or DC. Removable tips. 2 lbs.

**46-530. 125 Watt. Length 12"; tip diameter  $\frac{1}{8}$ ". Extra hot iron for Service-men. NET \$2.94**  
**46-531. 200 Watt. Length 14"; tip diameter  $\frac{1}{8}$ ". For auto work, lamp wiring, home repairs, light factory work, etc. \$4.85**  
**46-535.  $\frac{1}{4}$ " Replacement Tip.  $\frac{1}{2}$  lb. 29¢**  
**46-536.  $\frac{1}{2}$ " Replacement Tip.  $\frac{1}{2}$  lb. 49¢**

## PRODUCTION TYPE IRONS

**46-550. 100 Watt Iron. For continuous 24 hour service. Comparable to highest quality irons. Has  $\frac{1}{8}$ " tip. Wt., 2 lbs. \$4.88**  
**NET \$4.88**  
**46-552. 200 Watt Iron. Same as 46-550 described above, except rated at 200 watts, and has  $\frac{1}{4}$ " tip. Wt., 3 lbs. \$6.25**  
**NET \$6.25**



## STANDARD MODELS

Sturdy dependable Underwriters' Inspected Irons. Heating elements of highest-grade nichrome wire on amber mica. Tips are treated to prevent corrosion. With 6 foot approved cord fitted with a durable plug. Handles remain cool. For 115 V. AC or DC operation.

**46-521. 60 Watt. Length 12";  $\frac{1}{8}$ " screw-on tip. Ideal for any light solder work. Wire element extends into tip for faster heating. With stand. Gun metal finish. Wt., 1 lb. NET \$8.16**  
**46-522. 80 Watt. Length 13";  $\frac{1}{8}$ " tip. plunger type. For light radio work. With "Magic Cup" stand. Wt., 1 1/2 lbs. NET \$2.06**  
**46-523. 100 Watt. Length 12 1/2";  $\frac{1}{8}$ " tip. plunger type. For medium-heavy work. With "Magic Cup" stand. Wt., 2 lbs. NET \$2.44**  
**46-541. 100 Watt. 1 3/4" long.  $\frac{1}{8}$ " tip. Excellent for light radio work. Shpg. wt., 1 1/2 lbs. NET \$1.76**



## DRAKE "400" MIDGET

An extra small iron. Ideal for close connections. Length, 9"; weighs only 8 oz. 60 watt element with  $\frac{1}{8}$ " tip. Nichrome wire wound on amber mica. With 6 ft. cord, line plug and "Magic Cup" soldering stand. For 115V. AC-DC. Shpg. wt., 1 lb. **\$2.70**

## AMBERLY HANDLE WRENCHES

Hardened tool-steel socket wrenches,  $7\frac{1}{2}''$  long. With hollow shafts and shockproof unbreakable plastic handle. Shpg. wt., 12 oz. each.

| Stock No. | Size            | Stock No. | Size             |
|-----------|-----------------|-----------|------------------|
| 45-800    | $\frac{1}{4}$ " | 45-804    | $\frac{1}{2}$ "  |
| 45-801    | $\frac{3}{8}$ " | 45-805    | $\frac{9}{16}$ " |
| 45-802    | $\frac{1}{2}$ " | 45-806    | $\frac{5}{8}$ "  |
| 45-803    | $\frac{5}{8}$ " |           |                  |

**NET EACH \$2.00**

**45-810. Set of 7 wrenches. NET \$2.90**  
**45-820. Volume Control Wrench. \$1.16**  
**As above. For  $\frac{3}{8}$ " hex. nuts. NET \$1.16**

## SOCKET WRENCH SET



Set of 5 detachable sockets of wrought steel with wrench handle. Sizes:  $\frac{1}{4}$ ",  $\frac{3}{8}$ ",  $\frac{1}{2}$ ",  $\frac{5}{8}$ ", and  $\frac{3}{4}$ ".  $\frac{1}{2}$ " inch to cover most jobs. Wt., 1 lb. **45-825. NET \$1.16**

## HOLLOW HANDLE SET



Hollow handle holds all sockets. Sizes,  $\frac{1}{4}$ ",  $\frac{3}{8}$ ",  $\frac{1}{2}$ ",  $\frac{5}{8}$ ", and screwdriver socket,  $7\frac{1}{2}''$  long. Shpg. wt., 1 lb. **45-830. NET \$1.16**

## VEST-POCKET SOCKET SET

Compact, complete 8-piece pocket wrench set. Consists of seven sockets:  $\frac{1}{4}$ ",  $\frac{3}{8}$ ",  $\frac{1}{2}$ ",  $\frac{5}{8}$ ",  $\frac{3}{4}$ " round knurled,  $\frac{1}{2}$ " square, and 4" L handle with two friction knobs. In enameled box. Shpg. wt., 1 lb. **45-830. NET \$1.16**



# ANTENNAS • INTERFERENCE FILTERS

## KNIGHT VERTICAL ANTENNA

Mounts vertically to match best broadcasting type antenna construction. Picks up less noise than old style horizontal antennas. Provides efficient reception with All-Wave, Broadcast, or SW receivers. Simple to install. Guaranteed rust-proof. Insulator furnished provides positive weather-proof insulation. Universal bracket allows easy fastening to cable or flat roof, or to chimney, soil pipe, etc. Complete antenna assembly includes 4 section 12 foot mast made of admiralty brass with beautiful nickel-plated finish, universal mounting bracket, 40 feet of lead-in wire, 10 feet of ground wire, lightning arrester, insulators, etc. Shipping weight, 4 lbs.

**97-470. NET. \$3.75**

## WARD UNIVERSAL ROOF AND WINDOW ANTENNA

Latest type universal vertical antenna with newly developed bracket. Can be easily attached to window sill, soil pipe, side of house, stable or flat roof, chimney, etc. Improves reception. Will operate with any type of set: Broadcast, Short Wave, or All-Wave. Also for low-power, high-frequency IG and 20-meter transmission. Improved signal pickup. High signal-to-noise ratio. The perfect antenna for console sales. Guaranteed rust-proof. Includes 4-section 15-foot mast, soil pipe and universal mounting. 40 feet of lead-in wire and 9 feet of ground wire, ceramic insulators, ground clamp, and lightning arrester. Shipping weight, 6 lbs.

**97-451. Model C-120. NET. \$3.97**

## ICA WINDOW POLE ANTENNA

A deluxe window antenna, made of Admiralty brass with beautiful nickel-plated finish. Ideal for homes, apartments, hotels, offices and other buildings where a roof antenna is impractical. The ICA Window Pole Antenna is easily adjusted for the reception of Frequency Modulated signals. An adjustable bracket at base permits maximum pickup of either vertically or horizontally polarized FM signals. There are three telescoping sections which open to a maximum length of 96". With mounting base, insulator, and insulated lead-in strip. Mounting bracket is easily adjustable to any desired position. Shpg. wt. 2 lbs.

**97-460. NET. \$3.15**

## ALL-DIRECTIONAL AERIAL

Made for short-wave and broadcast reception. Simple to install. Does away with masts, poles, etc. Has 40-ft. lead-in. Complete with insulators and mounting bracket. Designed to produce greater volume and clearness of reception. Mounts in any convenient space indoors, outdoors, on roof or on window sill. 4 lbs.

**51-030. NET. \$3.65**

## ICA TENNA-SCOPE LOOP

Easily installed inside radio cabinet. Eliminates ground and antenna wires. Increases selectivity. Tuning range is 1715 KC to 500 KC. Small size permits use with portable radios and magnet sets. Size: 8" x 6" x 1 1/4". Shpg. wt. 1 lb.

**51-022. NET. \$1.32**

## SPRAGUE ANALYZER AND ELIMINATORS

**84-000. Model MA-1 Analyzer.** Quickly determines type of filter needed. Widely used by power companies, servicemen, etc. Connect into circuit of device causing interference. By rotating selector switch any one of 60 filter combinations is connected into the circuit to determine the correct filter for installation. With interference booklet and chart. For use on 110-120 volt lines. Shpg. wt. 8 lbs.

**\$27.90**



## INTERFERENCE ELIMINATORS

**70-100. Sprague IF-15.** A triple-section filter for small motors used in mixers, fans, drills, etc. RMA recommended design. Size, 2 1/4" x 1 1/4" dia. 6" leads. Shpg. wt. 8 oz.

**NET. 88c.**

**70-101. Sprague IF-25.** Double-section filter for medium-sized motors up to 1 H.P. and to 220V. Used on grinders, drill presses, etc. 3 1/2" x 1 1/4" dia. Wt., 8 oz.

**NET. \$1.59**

**70-102. Sprague IF-G1.** Metal encased, single-section filter for use on brush controller of generators, converters, etc. Case grounded. 1 1/2" x 1 1/4" dia. Shpg. wt. 6 oz.

**NET. 47c.**

**70-103. Sprague IF-G10.** High-capacity, single-section filter with enclosed terminals. Used with IF-11 on 3-wire distribution systems. 3 1/4" x 1 1/4". Shpg. wt., 8 oz.

**NET. \$1.41**

**70-104. Sprague IF-11.** Dual high capacity filter for heavy industrial uses. Size, 4 1/2" x 1 1/2" x 6" leads. Wt., 1 lb.

**NET. \$2.03**

## CONTINENTAL FILTERNOYS

### TYPE R01DH

Eliminate or materially reduce "man-made" static caused by shavers, mixers, etc. Plug-in Receptor-type. For use between radio and power outlet. 5-amp. capacity. Overall size, 2 1/4" x 1 1/4". For 110-120 Volts. AC or DC. Shpg. wt. 8 oz.

**70-380. NET. 71c.**

### TYPE G01DH

Wire-in suppression-type unit with two chokes and two condensers with grounded frame. Mounts on motors, washing machines, or dental machines, etc., drawing less than 300 watts AC or DC. Also for filtering interference caused by fluorescent lights. 2 1/4" x 1 1/4". Wt., 8 oz.

**70-352. NET. 71c.**

## TOBE RAZOR FILTERETTE

Enjoy early morning programs without the disturbing interference of your razor. Just plug unit in wall receptacle and plug razor in other end. In black bakelite case only 1 1/2" dia. by 2 1/4" long. Wt. 1 lb.

**70-341. NET. 65c.**

## ANTENNA LOOP FOR MIDGETS & PORTABLES

Replaces antenna coil in battery and midget sets or portables. Inductance is higher than needed—permits removing turns for accurately matching loop to radio. Easily installed. 12 oz.

**51-040. 4 1/4" x 8". NET. 48c.**

**51-041. 7 1/4" x 9 1/4". NET. 55c.**

## LIGHTNING ARRESTERS

**51-280.** All porcelain construction. Underwriters' Laboratory inspected. For single wire lead-in. With mounting hardware. Wt. 10 oz.

**10 FOR 81C. EACH. 9c.**

**51-281.** Bakelite construction. Underwriters' inspected. For single wire lead-in. With screw terminals. Wt. 1 lb.

**10 FOR 99C. EACH. 11c.**

**51-240.** Uses Neon element in place of the Underwriters' Laboratory. Sensitive; offers rare protection. Shpg. wt., 1 lb.

**EACH. 59c.**

**70-105. Sprague IF-21.** Dual, compact filter with 220 V. AC rating. Case grounds to motor frame. Size, 2 1/4" x 1 1/4". Shpg. wt., 1 lb.

**NET. 71c.**

**70-106. Sprague CH-1.** Metal encased choke of adequate inductance for R.F. filtering. 10 Amp. size, 3 1/4" x 1 1/4". Shpg. wt., 1 lb.

**NET. 97c.**

**70-107. Sprague LF-2.** Multi-section filter for electric shavers, hair dryers, and other units up to 1/2 amp. 115 V. AC—DC. Wt., 1 lb.

**NET. \$2.20**

## RADIO INTERFERENCE MANUAL

Compiled by Sprague engineers to help you determine the source of radio interference. All types of interference considered and the remedies suggested. Includes data on motors, neon signs, etc. Shpg. wt., 1 lb.

**37-520. NET PRICE. 25c.**

## MALLORY NOISE FILTERS

### TYPE LC-10

Inductance-capacity filter for eliminating severe interference. Install close to noise source. Has terminal for grounding to frame of motor or appliance. Plugs into 110-220 volt power source. Has convenient outlet on top of case to accommodate plug of motor or other electrical appliance. Easily installed on a wall or directly on the appliance. Overall size, 2 1/4" x 3" x 3 1/4". For any electrical apparatus drawing up to 10 amps. Shpg. wt., 5 lbs.

**70-320. NET. \$5.64**

### TYPE X5 FILTER

For use with vacuum cleaners, food mixers, etc. Use between the electrical appliance and the 110-220 volt power line. Has binding post for grounding to frame of appliance or motor. Triple capacity filter. Blocks interference at source. Handles up to 5 amps. 1 1/4" x 2 1/4". Shpg. wt., 1 lb.

**70-321. NET. 88c.**

We can supply all Mallory Filters. Write for FREE Mallory Circular 37-007.

## INDOOR AERIAL AND ANTENNA TUNER

Operates as a noise reducer when used with an outdoor aerial. May also be used as indoor aerial. 1 lb.

**51-021. NET. 85c.**

## TACO POWER ANTENNA

Picks up radio signal from power line, filters and matches it to set. May be mounted inside radio cabinet. Wt., 1 lb.

**51-005. NET. \$1.18**

## INDOOR ANTENNA

Replaces outside aerial. Condenser coil combination built in, gives equivalent of 75 feet of wire. Measures 5 x 2 1/2" x 1". Compact construction permits installation in any type of model receiver cabinet. Wt., 1 lb.

**51-023. NET. \$1.45**

# Belden RADIO PRODUCTS

## SHIELDED LEAD-IN

Type 8206. Size 16 stranded, rubber-covered, copper-wire conductor with braided tinned-copper shield overall. Maximum capacity per foot, 63.0 mmfd. 1/4" rubber wall.

**47-832. 250 FT. \$3.89**



## 72 OHM COAXIAL CABLE

Type 8216. For Low Frequencies. Size 14 stranded (19 x 28) tinned wire with low-loss rubber compound, braided tinned-copper shield, rubber-covered overall. O.D., .460".

**47-840. PER FOOT. 13¢**  
**47-842. 250 FEET. \$28.75**



## 72 OHM COAXIAL CABLE

Type 8217. For Radio Frequencies. Size 12 solid tinned copper-wire conductor with low-loss insulating bead, braided tinned-copper shield, cotton wrap, and vulcanized rubber sheath overall. O.D., .475". Capacity between conductors, 10.6 mmfd. Designed for RF work, FM and Television. Maximum load, 2,000 watts.

**47-846. 100 FT. \$31.71**



## TRANSMITTING CABLE

Type 8218. Belden E01. Twisted pair No. 12 solid copper wire with cellophane wrap and .035" rubber insulation over each. Covered overall with weather-proofed cotton braid, 29.7 mmfd. per ft. Will handle power output up to 2,000 watts.

**47-500. PER FOOT. 5¢**  
**47-502. 500 FEET. \$19.81**



## MATCHED IMPEDANCE TWISTED PAIR LEAD-IN

Type 8204. 66.4 ohm twisted pair. Two No. 18 conductors covered with color-coded rubber and white weather-proof braid. Designed to match most all-wave antennas and receivers.

**47-639. PER FOOT. 21¢**  
**47-643. 500 Ft. Coll. \$9.15**



## SHIELDED GRID WIRE

Type 8285. Stranded tinned-copper wire with 1/4" rubber, lacquered rayon, and copper shield.

**47-790. PER FOOT. 2¢**  
**47-793. 500 FEET. \$7.58**



## GROUND CLAMP

Sturdy ground clamp for radio or telephone use. Has lead-connector and clamp-screw with pointed tip and lock-nut. Max. bite 1 1/4".

**51-305. EACH. 3¢**  
**10 FOR. 27¢**  
**100 FOR. \$2.43**



## MICROPHONE CABLE

Type 8481. Single Conductor Cable. Size 25 stranded and tinned. Rubber core, cotton-braid covered, braided tinned-copper shield, cotton-wrap, heavy rubber jacket. Cap. per ft., 25 mmfd. O.D., .245".

**47-560. PER FOOT. 6¢**  
**47-562. 500 FEET. \$23.25**

Type 8411. Single-Conductor Cable. Like 8481 but cap., 35 mmfd. and 155" O.D.

**47-600. PER FOOT. 4¢**  
**47-604. 100 FEET. \$3.24**

Type 8422. 2-Conductor Cable. Each, size 20 (26 x 34) tinned, cotton-wrapped with color-coded rubber jacket, and cabled in a cotton wrap with braided tinned-copper shield, and rubber jacket overall. Cap. per ft., between conductor and shield, 70 mmfd.; cond. cap., 37 mmfd. O.D., .260".

**47-450. PER FOOT. 6¢**  
**47-452. 100 FEET. \$4.68**

Type 8423. 3-Conductor Cable. Like 8422, but cap. between wires and shield is 65 mmfd.

**47-460. PER FOOT. 7¢**  
**47-463. 250 FEET. \$15.27**

Type 8424. 4-Conductor Cable. Cap. per ft., between cond. and shield, 57 mmfd.; between conductors, 35 mmfd. O.D., .325".

**47-470. PER FOOT. 9¢**  
**47-473. 250 FEET. \$18.82**

Type 8425. 5-Conductor Cable. Cap. between wires and shield, 58 mmfd.; wires 30 mmfd.

**47-480. PER FOOT. 10¢**  
**47-483. 250 FEET. \$23.49**

Type 8426. 6-Conductor Cable. Cap. between wires and shield, 60 mmfd.; wires, 27 mmfd.

**47-490. PER FOOT. 13¢**  
**47-492. 100 FEET. \$10.94**

Type 8427. 7-Conductor Cable. Cap. between wires and shield, 56 mmfd.; between wires, 26 mmfd.

**47-510. PER FOOT. 14¢**  
**47-512. 100 FEET. \$11.70**



## SHIELDED MIKE CABLE

Type 8432. 2-Conductor Cable. Size 20 stranded and tinned, covered with a paper wrap, a 1/4" rubber jacket, and color-coded cotton-braid, with a tinned-copper shield overall. Cap. per ft., between cond. and shield, 61 mmfd.

**47-870. PER FOOT. 3 1/2¢**  
**47-872. 250 FEET. \$6.67**

Type 8433. 3-Conductor Cable. Cap. between wires and shield, 55 mmfd.; wires 30 mmfd.

**47-880. PER FOOT. 4 1/2¢**  
**47-884. 100 FEET. \$3.65**

Type 8434. 4-Conductor Cable. Cap. between wires and shield, 55 mmfd.; wires, 30 mmfd.

**47-894. 100 FEET. 5 1/2¢**  
**47-894. 100 FEET. \$4.23**



## MUELLER CLAMP

Positive contact ground clamp. Channel construction. Max. bite 1 1/4". Case hardened steel. Rust proofed. Shpg. wt. 4 oz.

**51-310. NET. 8¢**  
**10 for. 72¢**  
**100 for. \$6.48**



## APPROVED CORD SET

An Underwriters' Approved cord set for radios, lamps, fans, amplifiers, etc. 6 foot cord with unbreakable rubber plug. Wt., 1 lb.

**49-230. NET. 18¢**

## RUBBER-COVERED TYPE

Type 8452. 2-Conductor Cable. S.J. Type. Size 18 (41x34) cotton wrap and 1/4" color-coded rubber jacket with a cotton wrap and a .035" rubber sheath overall.

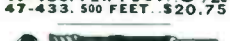
**47-410. PER FOOT. 3¢**  
**47-413. 500 FEET. \$12.01**

Type 8453. 3-Conductor Cable. Same as 8452 above, but covered overall with a .040" rubber sheath. O.D., .265".

**47-420. PER FOOT. 4¢**  
**47-423. 500 FEET. \$16.09**

Type 8454. 4-Conductor Cable. As 8452 above, except 2 number 18 (41 x 34) and 2 number 20 (26 x 34) with a .040" rubber sheath. O.D., .260".

**47-430. PER FOOT. 5 1/2¢**  
**47-433. 500 FEET. \$20.75**



## ARMORED CABLE

Type 8212. 2-Conductor Cable. Two size 18 stranded tinned-copper conductors, each in a color-coded cotton-wrap. These are parallel cabled with a 1/4" rubber core, covered with a paper wrap, and a flexible armor overall. Outside diameter; cable, .155"; armor, .260". An excellent general purpose, public address, and intercom cable.

**47-880. PER FOOT. 3 1/2¢**  
**47-882. 500 FEET. \$13.02**



## HIGH-TENSION CABLE

Type 8665. 7 mm. Pyro-Glaze high-tension wire. Tinned-copper shield. Highest grade.

**47-780. PER FOOT. 10¢**  
**47-782. 100 FEET. \$8.25**



## CELLULOSE ACETATE PUSH-BACK WIRE

Tinned-copper conductor with cellulose wrap, and lacquered abrasion-proof, rayon braid.

In 500 foot rolls only.

| 18 Solid       | 18 Stranded    |
|----------------|----------------|
| 47-050. Red    | 47-050. Red    |
| 47-051. Black  | 47-051. Black  |
| 47-052. Blue   | 47-052. Blue   |
| 47-053. Green  | 47-053. Green  |
| 47-054. Yellow | 47-054. Yellow |
| PER ROLL       | PER ROLL       |
| NET. \$3.15    | NET. \$3.60    |

| 20 Solid       | 20 Stranded    |
|----------------|----------------|
| 47-070. Red    | 47-070. Red    |
| 47-071. Black  | 47-071. Black  |
| 47-072. Blue   | 47-072. Blue   |
| 47-073. Green  | 47-073. Green  |
| 47-074. Yellow | 47-074. Yellow |
| PER ROLL       | PER ROLL       |
| NET. \$2.65    | NET. \$3.05    |

No. 14 Stranded

**47-090. Red**  
**47-091. Black. EA. \$5.27**



## APPROVED P.O.S.J. TYPE LAMP CORD

Rubber-jacketed, parallel cord; each conductor is No. 18 stranded copper wire, separately insulated to tough rubber pull-apart sheath.

**BLACK**

**48-770. PER FOOT. 2 1/2¢**  
**48-773. 100 FEET. \$1.68**

**BROWN**

**48-760. PER FOOT. 2 1/2¢**  
**48-763. 100 FEET. \$1.68**

## INTERCOM CABLE

Type 8795. 19 solid copper wire. 2-cond. Enameled, cotton wrap, waxed color-coded cotton braid, twisted pair, and bare copper shield. O.D., .145".

**47-590. PER FOOT. 3¢**  
**47-592. 500 FEET. \$10.23**

Type 8792. Size 20 solid tinned copper conductors with impregnated cotton wrap, cotton braid and braided tinned-copper shield overall. Twisted pair are individually cotton-wrapped and covered with waxed, color-coded cotton braid. O.D., .165".

**47-595. PER FOOT. 3¢**  
**47-598. 500 FEET. \$12.31**



## SHIELDED TWISTED PAIR

Type 8205. Size 18 stranded, tinned-copper conductors with cotton wrap, color-coded rubber jacket, twisted and cabled with paper wrap, braided tinned-copper shield and weather-proofed cotton-braid overall.

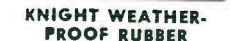
**47-880. PER FOOT. 4¢**  
**47-883. 500 FEET. \$16.88**



## R. C. TWISTED PAIR

Type 8205. Size 22 stranded tinned copper, paper wrapped, rubber-covered, color-coded, twisted pair with weather-proofed cotton-braid overall. O.D., .180". For outdoor installations.

**47-860. PER FOOT. 1 1/2¢**  
**47-863. 500 FEET. \$6.21**



## KNIGHT WEATHER-PROOF RUBBER SERVICE CORD



Round, flexible, weather-proof cable. No. 18 (16/30) stranded wire conductors, each rubber covered and coded; with cotton wrapping and outer live rubber sheath.

**2 CONDUCTOR**

**47-400. Per Foot. 4¢**  
**47-402. 100 Feet. \$3.20**

**3 CONDUCTOR**

**47-550. Per Foot. 5¢**  
**47-551. 100 Feet. \$3.95**

## FLEXIBLE SPAGHETTI



For insulating any bare wire and condenser and resistor. Digital leads. Fine quality impregnated cambric tubing.

**49-200. Black. Per 30' Lth. 2¢**  
**49-201. Red. 8¢**  
**49-203. Green. 8¢**

**18 LENGTHS FOR. 72¢**

## GIANT SPAGHETTI

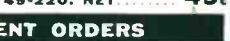
Black cambric tubing, impregnated with oil varnish. 1/4" inside diameter, 36" long.

**49-210. NET. 19¢**  
**10 LENGTHS FOR. \$1.71**

## SPAGHETTI ASSORTMENT

A handy selection of 26 lengths of spaghetti tubing in assorted diameters. Each piece is 7 1/2" long. Shpg. wt. 1 lb.

**49-220. NET. 45¢**





# HOOKUP & MAGNET WIRE - CABLES



## AERIAL WIRE

High-quality hard-drawn stranded type copper wire. Has high conductivity and very little stretch. Enamelled wire will not corrode. Ideal for all types of aerials: single wire, doublet, or multi-wire; for All-Wave, Short-Wave, or Broadcast sets. Wts. 2 lbs. for 100 feet.

### 75 FT. COILS—ENAMELED

| No.    | Size | Per Coil | 10 Coils |
|--------|------|----------|----------|
| 49-001 | 7x24 | \$0.50   | \$4.75   |
| 49-002 | 7x22 | .62      | 5.95     |

### 100 FT. COILS

|        |      |     |      |
|--------|------|-----|------|
| 49-011 | 7x24 | .62 | 5.90 |
| 49-012 | 7x22 | .79 | 7.50 |

### 75 FT. COILS—BARE

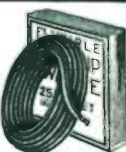
| No.    | Size | Per Coil | 10 Coils |
|--------|------|----------|----------|
| 49-061 | 7x24 | \$0.30   | \$2.85   |
| 49-062 | 7x22 | .43      | 4.05     |

### 100 FT. COILS

|        |      |     |      |
|--------|------|-----|------|
| 49-071 | 7x24 | .37 | 3.50 |
| 49-072 | 7x22 | .58 | 5.40 |

## PUSH-BACK HOOK-UP WIRE

Of highest quality. Only evenly-drawn copper wire is used. Available in both solid and stranded wire. The stranded wire is made up of carefully twisted individual strands of great tensile strength. Both types double-cotton covered with paraffin-treated damp-proof braid which pushes back easily. Available in five colors: Black, Red, Blue, Green and Yellow. Shpg. wts.: 25 ft., 4 oz.; 100 ft., 1 lb.; 1000 ft., 5 lbs. 10 oz.



### SPECIFY COLORS DESIRED

#### NO. 20 SOLID

|        |                     |        |
|--------|---------------------|--------|
| 48-329 | 25 ft. coil, NET.   | 18c    |
| 48-339 | 100 ft. coil, NET.  | 64c    |
| 48-349 | 1000 ft. coil, NET. | \$5.15 |

#### NO. 20 STRANDED

|        |                     |        |
|--------|---------------------|--------|
| 48-359 | 25 ft. coil, NET.   | 20c    |
| 48-369 | 100 ft. coil, NET.  | 75c    |
| 48-379 | 1000 ft. coil, NET. | \$5.95 |



## COLOR RUBBER HOOKUP WIRE

A stranded hookup wire made of soft-drawn No. 18 tinned copper wire covered with a cotton wrap and live non-cracking colored rubber insulation overall. Wts., 25', 4 oz.; 1000', 5 lbs. 10 oz.

### 25 FOOT COILS

Available in five colors: Black, Red, Blue, Green and White. Be sure to specify color desired when ordering.

48-199, 25 foot coil, NET. 19c

### 1000 FOOT COILS

Available in four colors: Black, Red, Blue and White. Specify color desired.

48-209, 1000 foot coil, NET. 5.85

### 25 FOOT COILS NO. 16 STRANDED

No. 16 stranded hookup wire with current carrying capacity of 7 amperes. Available in Black or Red. Specify color desired.

48-219, 25 foot coil, NET. 32c

## HIGH-GRADE MAGNET WIRE ON SPOOLS

Insulated copper wire of highest quality for all radio and electrical purposes. Wound on spools in continuous lengths. Excellent for winding armatures and field coils, receiver and transmitter coils, rewinding power transformers and chokes. For shops, schools, laboratories, radio builders, experimenters, etc. Standard B. & S. Gauge. Plain Enamelled, Double Cotton, or Single Cotton Enamel types. We can supply magnet wire in all sizes and types in larger quantities than listed below. Write for quantity prices. Shpg. wts.: 1/4 lb. spool, 9 oz.; 1/2 lb. spool, 14 oz.; 1 lb. spool, 1 1/4 lbs.

### PLAIN ENAMELED 1/2 LB. SPOOLS

| No.    | Size | Ft.  | NET    |
|--------|------|------|--------|
| 48-100 | 14   | 38   | \$0.28 |
| 48-102 | 16   | 63   | .29    |
| 48-104 | 18   | 101  | .30    |
| 48-106 | 20   | 159  | .31    |
| 48-108 | 22   | 253  | .32    |
| 48-109 | 24   | 402  | .33    |
| 48-111 | 26   | 640  | .36    |
| 48-112 | 28   | 1013 | .38    |
| 48-113 | 30   | 1502 | .40    |
| 48-114 | 32   | 2543 | .47    |
| 48-115 | 34   | 4042 | .55    |
| 48-116 | 36   | 6410 | .71    |

### DOUBLE COTTON 1/2 LB. SPOOLS

| No.    | Size | Ft.  | NET    |
|--------|------|------|--------|
| 48-120 | 14   | 36   | \$0.30 |
| 48-122 | 16   | 61   | .33    |
| 48-124 | 18   | 96   | .36    |
| 48-126 | 20   | 150  | .40    |
| 48-128 | 22   | 234  | .41    |
| 48-129 | 24   | 362  | .47    |
| 48-131 | 26   | 558  | .57    |
| 48-132 | 28   | 842  | .65    |
| 48-133 | 30   | 1213 | .72    |
| 48-134 | 32   | 1889 | .90    |
| 48-135 | 34   | 2746 | 1.06   |
| 48-136 | 36   | 3801 | 1.48   |

### S. C. E. 1 LB. SPOOLS

| No.    | Size | Ft.  | NET    |
|--------|------|------|--------|
| 48-020 | 14   | 78   | \$0.51 |
| 48-022 | 16   | 124  | .57    |
| 48-023 | 17   | 156  | .58    |
| 48-024 | 18   | 198  | .60    |
| 48-025 | 19   | 248  | .62    |
| 48-026 | 20   | 312  | .64    |
| 48-028 | 22   | 490  | .68    |
| 48-029 | 24   | 772  | .78    |
| 48-030 | 25   | 936  | .87    |
| 48-031 | 26   | 1209 | .93    |
| 48-032 | 28   | 1876 | 1.05   |
| 48-033 | 30   | 2780 | 1.07   |

## HEAVY-DUTY AERIAL WIRE

### HARD DRAWN SOLID ENAMELED WIRE

Of highest quality solid copper.

| No.    | Gauge | Feet | NET    |
|--------|-------|------|--------|
| 47-013 | 10    | 100  | \$1.47 |
| 47-023 | 10    | 200  | 2.90   |
| 47-030 | 10    | 500  | 7.25   |
| 47-012 | 12    | 100  | .96    |
| 47-022 | 12    | 200  | 1.90   |
| 47-011 | 14    | 100  | .65    |
| 47-021 | 14    | 200  | 1.29   |

### SINGLE CONDUCTOR LEAD-IN WIRE

#### R. C. STRANDED

Stranded No. 18 rubber-covered lead-in wire. Flexible wire; very easy to work.

| Stock No. | Length   | NET    |
|-----------|----------|--------|
| 48-923    | 100 ft.  | \$0.55 |
| 48-924    | 250 ft.  | 1.34   |
| 48-925    | 1000 ft. | 5.10   |

#### SOLID

High quality No. 16 rubber covered lead-in wire. Weatherproof.

| Stock No. | Length  | NET    |
|-----------|---------|--------|
| 48-931    | 25 ft.  | \$0.23 |
| 48-932    | 50 ft.  | .44    |
| 48-933    | 100 ft. | .85    |

#### SHIELDED STRANDED

No. 20 stranded tinned wire, rubber-covered; tinned copper braid overall.

| No.    | Size | Lgth.   | NET    |
|--------|------|---------|--------|
| 48-940 | 20   | Per Ft. | 2c     |
| 48-944 | 20   | 500 ft. | \$7.44 |

### NO. 16 STRANDED WIRE

Heavy rubber insulation on stranded conductor. Braided copper shield overall. Weatherproof.

|        |    |         |        |
|--------|----|---------|--------|
| 48-950 | 16 | Per Ft. | 2c     |
| 48-952 | 16 | 250 ft. | \$3.80 |

## SOLID TINNED COPPER

Heavy duty aerial wire made of finest quality copper. The wire is tinned, a factor which permits easy soldering for the best possible electrical connection. Approximate shipping weights, 2 lbs.

| No.    | Gauge | Feet | NET    |
|--------|-------|------|--------|
| 47-520 | 14    | 100  | \$0.76 |
| 47-530 | 14    | 100  | 1.06   |
| 47-540 | 10    | 100  | 1.94   |

### TWISTED PAIR LEAD-IN SHIELDED TYPE

Particularly suitable for all-wave and doublet aerials. Consists of two No. 20 solid copper conductors adequately protected by tough, durable weatherproof insulation with closely woven flexible copper shielding.

48-830, PER FOOT... 3c

48-832, 100 Feet... \$2.65

#### WEATHERPROOF

Two No. 22 stranded copper conductors, rubber covered with paraffined braid overall. Completely weatherproofed commercial cable with a multitude of uses; for low impedance transmission lines, etc.

48-840, PER FOOT... 1 1/2c

48-842, 100 Feet... \$1.20

#### RUBBER COVERED TWISTED PAIR

For all noise-reducing doublet antenna systems. No. 18 twisted rubber-covered stranded wire.

48-851, 50 Feet... \$0.71

48-852, 100 Feet... 1.34

48-853, 250 Feet... 3.18

## GENERAL PURPOSE MULTI-CONDUCTOR CABLE



### TELEPHONE WIRE

Twisted pair No. 19 solid tinned-copper wire, with 1/4" insulation, and glazed cotton braid overall. For indoor low-voltage installations such as telephone or intercom systems, PA speakers, etc.

#### 2 CONDUCTOR

48-810, Per Ft. NET... 2 1/2c

48-811, 100 Ft. NET... \$2.25

#### 3 CONDUCTOR

48-820, Per Ft. NET... 3 1/2c

48-821, 100 Ft. NET... \$2.90



### MULTI-CONDUCTOR STRANDED CABLES

Conductors are No. 18-16 x 30 stranded tinned copper wire. Color coded; with live rubber jacket and brown cotton braid overall.

| Cond. | No.    | Per Foot | 100 Feet |
|-------|--------|----------|----------|
| 2     | 48-610 | 2c       | \$1.82   |
| 3     | 48-620 | 2 1/2c   | 2.37     |
| 4     | 48-630 | 3c       | 2.90     |
| 5     | 48-640 | 4c       | 3.90     |
| 6     | 48-650 | 5 1/2c   | 5.22     |

### LAMP CORD

Underwriters' Approved. No. 18-16 rubber insulation with black cotton braid overall.

48-860, Per Foot... 3c

48-863, 100 Ft. NET... \$2.05



### GUY WIRE

50-ft. coil of galvanized steel wire. Wt. 1 lb.

51-320... 17c

### CARBON MIKE AND UTILITY CABLE

Consists of No. 18-16 x 30 tinned copper wire with cotton serve and rubber coat over each conductor. Conductors are in tinned shielding with rubber cover overall.

| Cond. | No.    | Per Foot | 100 Feet |
|-------|--------|----------|----------|
| 2     | 48-550 | 5c       | \$4.35   |
| 3     | 48-560 | 6c       | 4.95     |
| 4     | 48-570 | 7c       | 5.55     |
| 5     | 48-580 | 9c       | 8.60     |



### SHIELDING OVERALL

No. 18-16 x 30 stranded tinned copper wire with cotton serve and rubber insulation over each conductor. Conductor is color coded. Tinned shielded braid overall. A very durable, flexible cable with a multitude of uses.

| Cond. | No.    | Per Foot | 100 Feet |
|-------|--------|----------|----------|
| 2     | 48-700 | 4c       | \$3.05   |
| 3     | 48-710 | 5c       | 3.65     |
| 4     | 48-720 | 6c       | 4.90     |



### SPRING AERIAL

Stretch of 15 to 30 ft. Fiber end 1 lb.

51-300, NET... 16c



### SPRING ADJUSTER

Prevents antenna sag. Porcelain insulator end-rings. 1 lb.

51-301, EACH... 24c

# INSULATORS • JACKS AND PLUGS

## E. F. JOHNSON BUSHINGS AND FEEDER SPREADERS



### LEAD-IN BUSHINGS

Have many applications in transmitter and antenna installations. Type 53 is ultra-soft and others are white glazed porcelain. Types 50, 51, 52 and 55 have nickel-plated brass rod and nuts.

| Stock No. | Mfr's. Type | Fig. | Hgt.   | Dia.   | Panel Hole | NET EACH |
|-----------|-------------|------|--------|--------|------------|----------|
| 73-160    | 50          | D    | 1 1/2" | 1 1/2" | 1 1/2"     | 12c      |
| 73-161    | 51          | D    | 1 1/2" | 1 1/2" | 1 1/2"     | 21c      |
| 73-162    | 52          | B    | 1 1/2" | 1 1/2" | 1 1/2"     | 29c      |
| 73-163    | 53          | B    | 1 1/2" | 1 1/2" | 1 1/2"     | 18c      |
| 73-164    | 54          | A    | 1 1/2" | 1 1/2" | 1 1/2"     | 41c      |
| 73-165    | 55          | A    | 1 1/2" | 1 1/2" | 1 1/2"     | 18c      |



### FEEDER SPREADERS

For use in all types of feeder lines, either transposed or non-transposed. Made of low absorption white glazed porcelain.

Type 31 (Fig. B) prevents twisting. For 2" line spacing. Others are 3/4" x 1/2" bars.

| Stock No. | Mfr's. Type | Fig. | Length | NET EACH |
|-----------|-------------|------|--------|----------|
| 73-110    | 31          | B    | 2"     | 10c      |
| 73-111    | 132         | A    | 2"     | 9c       |
| 73-112    | 134         | A    | 4"     | 12c      |
| 73-113    | 136         | A    | 6"     | 15c      |

## NATIONAL STAND-OFF INSULATORS

Molded acetate insulators. Glazed to prevent moisture absorption. Fig. "A" is Stand-Off Insulator, complete with mounting base and top cap—1/4" dia. size have solder lug and screw; 3/4" dia. have heavy binding screw. Fig. "B" is Cone Insulator, for mounting parts on metal chassis; threaded 8-32 at both ends. Fig. "C", Feed-Through Insulator, have dangle type stentile base, 1 1/2" mounting centers. Ship. wt. 8 oz.



| Stock No. | Mfr's. Type | Fig. | Hgt.   | Dia.   | NET EACH |
|-----------|-------------|------|--------|--------|----------|
| 73-125    | GS-1        | A    | 1 1/2" | 1 1/2" | \$0.24   |
| 73-126    | GS-2        | A    | 2 1/2" | 2 1/2" | .30      |
| 73-127    | GS-3        | A    | 2 1/2" | 2 1/2" | .60      |
| 73-128    | GS-4        | A    | 6"     | 6"     | 1.05     |
| 73-130    | GS-5        | B    | 1 1/4" | 1 1/4" | .24      |
| 73-131    | GS-6        | B    | 3"     | 3"     | .42      |
| 73-132    | GS-7        | B    | 3"     | 3"     | .75      |
| 73-133    | GS-8        | C    | 1 1/4" | 1 1/4" | .54      |
| 73-134    | GS-9        | C    | 1 1/4" | 1 1/4" | .75      |

\*Has jack for standard banana plug.

## AMPHENOL CO-AXIAL CABLE



Amphenol No. 72 Flexible Co-Axial Cable is the ideal cable for high frequency service. Imp. [72 ohms, matches center of a half-wave antenna; 16 mmid. capacity per ft. Constructed of polyethylene beads on No. 12 solid copper wire, covered with woven copper shield. Bends on 1" radius without bending center conductor. No. 72-12 has double-cotton impregnated outer braid; No. 72-12R has .050" rubber wall over two impregnated cotton braids.

73-785, No. 72-12, Per Foot. NET. 29c  
73-786, No. 72-12R, Per Foot. NET. .53c

## LARGE STAND-OFF INSULATORS

High-grade glazed porcelain construction with deep corrugations. Cadmium-plated steel hardware.

51-206, 5 1/2" high, with base 2 1/2" square. Wt., 1 1/2 lbs. NET EACH. 37c

51-207, 3 1/2" high, with base 1 1/2" square. Wt., 1/2 lb. NET EACH. 18c

## FAVORITE E. F. JOHNSON QUALITY PRODUCTS

### JOHNSON JACKS & PLUGS



### STAND-OFF INSULATORS

Made of a superior grade of low absorption high glazed porcelain. Heavy breakage-resistant bases. Nickel-plated brass hardware. Types 65, 66 and 67 have cadmium steel bases. "J" indicates jack type. "S" square base type. Wt., 1 lb.

| Stock No. | Mfr's. Type | Fig. | Body Hgt. | Hard-ware | NET EACH |
|-----------|-------------|------|-----------|-----------|----------|
| 73-120    | 20          | A    | 1 1/2"    | 10-32     | 8c       |
| 73-121    | 20J         | A    | 1 1/2"    | 7-32      | 11c      |
| 73-122    | 22          | A    | 1"        | 8-32      | 6c       |
| 73-123    | 22J         | A    | 1"        | 6-32      | 8c       |
| 73-124    | 24          | A    | 1 1/2"    | 6-32      | 5c       |
| 73-125    | 60          | C    | 4 1/2"    | 1/4-20    | 38c      |
| 73-126    | 62          | C    | 2 1/2"    | 1/4-20    | 24c      |
| 73-127    | 65          | C    | 1 1/2"    | 10-32     | 15c      |
| 73-128    | 65J         | C    | 1 1/2"    | 7-32      | 18c      |
| 73-129    | 66          | D    | 2 1/2"    | 1/4-20    | 15c      |
| 73-130    | 66J         | D    | 2 1/2"    | 7-32      | 32c      |
| 73-131    | 67          | D    | 4 1/2"    | 1/4-20    | 35c      |
| 73-132    | 67J         | D    | 4 1/2"    | 7-32      | 47c      |



### PORCELAIN CONES

Made of high-grade, white, glazed, low absorption porcelain. Furnished with machine screws top and bottom, and with cushion washer. Deeply threaded. One-hole mounting. Av. wt., 1 lb.

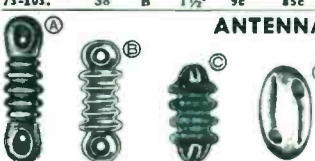
| No.    | Type | Fig. | Hgt.   | Thread | NET |
|--------|------|------|--------|--------|-----|
| 73-140 | 600  | A    | 3/4"   | 6-32   | 8c  |
| 73-141 | 601  | A    | 1"     | 8-32   | 10c |
| 73-142 | 601J | B    | 1"     | 7-32   | 13c |
| 73-143 | 602  | A    | 1 1/2" | 8-32   | 12c |
| 73-144 | 602J | B    | 1 1/2" | 7-32   | 15c |
| 73-145 | 603  | A    | 2"     | 10-32  | 15c |
| 73-146 | 603J | B    | 2"     | 7-32   | 18c |
| 73-147 | 604  | A    | 3"     | 10-32  | 24c |
| 73-148 | 604J | B    | 3"     | 7-32   | 29c |

## STRAIN INSULATORS



White glazed low absorption porcelain. Type 32 is for use to light guy wires or receiving antennas. Type 38 is especially designed for RF.

| Stock No. | Type | Fig. | Lgh.   | EACH 10 for |
|-----------|------|------|--------|-------------|
| 73-100.   | 32   | A    | 1 1/2" | 5c 45c      |
| 73-103.   | 38   | B    | 1 1/2" | 9c 85c      |



## ANTENNA INSULATORS

A splendid selection of sturdy insulators for practically every application in antenna installation. Each type of insulator is made of the finest quality material to assure dependable service.

| Stock No. | Fig. | Size            | Description              | Shpg. wt. | EACH | 10 For | 100 For |
|-----------|------|-----------------|--------------------------|-----------|------|--------|---------|
| 51-200    | A    | 3 1/2"          | Pyrex glass, 250W        | 1 1/2 lb. | 21c  | \$1.89 |         |
| 51-201    | A    | 2 1/2"          | Pyrex glass, 1000W       | 1 1/2 lb. | 79c  | 7.11   |         |
| 51-200    | B    | 2 1/2"          | Glass type               | 1 1/2 lb. | 3c   | .24    | \$2.16  |
| 51-201    | B    | 2 1/2"          | Glazed porcelain         | 2 lb.     | 9c   | .81    | 7.29    |
| 51-206    | C    | 5"              | Glazed porcelain         | 2 lb.     | 9c   | .81    | 7.29    |
| 51-207    | C    | 5"              | Lo-loose white porcelain | 1 lb.     | 3c   | .24    | 1.92    |
| 51-208    | E    | 2 1/2" x 1 1/2" | Brown glazed porcelain   | 1 lb.     | 7c   | .63    | 5.67    |
| 51-209    | F    | 1 1/2" x 1 1/2" | Porcelain nail knob      | 12 oz.    | 3c   | .24    | 1.92    |
| 51-210    | G    | 3" x 1 1/2"     | Porcelain tube           | 8 oz.     | 3c   | .24    | 1.92    |
| 51-271    | G    | 6" x 1 1/2"     | Porcelain tube           | 8 oz.     | 3c   | .24    | 1.92    |
| 51-272    | H    | 7"              | Eye wall insulator       | 4 oz.     | 3c   | .24    | 1.92    |
| 51-276    | H    | 7"              | Eye wall insulator       | 4 oz.     | 4c   | .36    | 3.24    |

## BEE-HIVE INSULATOR

For supporting coils, condensers, high voltage leads, etc. Made of white glazed porcelain, 2 1/2" diam.; 2 1/4" high. Extra-strong; fully weather-proofed for outdoor use. Shpg. wt. 8 oz.

51-208, 10 for 99c. EACH. 11c

## ANTENNA INSULATORS

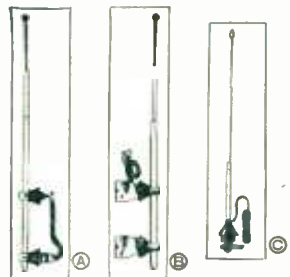
Made of strong white porcelain. Low capacity and long leakage path. All 1" diameter.

88-200, 7" long. Wt., 1/4 lb. EACH. 22c  
88-201, 12" long. 1 lb. EACH. 29c  
88-202, 20" long. 1 1/2 lbs. EACH. 39c



# AUTO AERIALS AND ACCESSORIES

## KNIGHT AUTO AERIALS



### SIDE COWL AERIALS—FIG. A

Mount on side cowl of car. Triple-chrome plating prevents rusting. Spring contacts on all telescopic joints eliminate rattling. Bakelite insulators and shielded lead-ins. Av. wt. 2 lbs.

- 97-100. 3-section telescopic. \$2.32  
20" to 60". NET  
97-101. 3-section. 23 1/4" to 72". \$2.64  
97-102. 3-section. 31 1/4" to 96". \$2.95

### UNDERHOOD COWL AERIALS—B

Telescopic; of heavy Admiralty Brass and stainless steel. Triple-chrome plated and rust-proof. The 97-105 model has a single mounting bracket; other two models have two brackets. Low-loss lead-in. Av. shpg. wt. 2 lbs.

- 97-105. 3-section. Extends from 20" to 60". NET \$2.33  
97-106. 3-section. 23 1/4" to 72". \$2.63  
97-107. 3-section. 31 1/4" to 96". \$2.95

### HINGE-TYPE AERIALS—FIG. C

Triple-chrome plated over heavy brass and stainless steel. Telescopic. Rustproof and rat-proof. Mount directly on hinge-plate of car door. No drilling. With lead-in. Wt. 2 lbs.

- 97-110. 2-section. 25" to 48". \$1.75  
NET  
97-111. 3-section. 20" to 62". \$2.25  
97-112. 3-section. 23 1/4" to 72". \$2.39

### WARD FLEX-ANGLE FOR COWL AND FENDER

Model E1-48. New type aerials which fit cowl and fender contours. Sturdy, two-bolt single-mount type for easy installation. Simple cut attachment at the base enables antenna to be adjusted through a range of 16° overall so that a vertical antenna can be used with any cowl or fender shape. It's complete with 48" standard waterproof High Q lead and positive-contact Ward "UNI-PLUG" for connecting with all radios. Three sections extend 65". Requires a minimum of time, tools and labor to install. Ideal for use with all major Buick, Pontiac, Oldsmobile, Chrysler, Plymouth, etc. Shpg. wt. 2 lbs.

97-200. NET. \$2.91

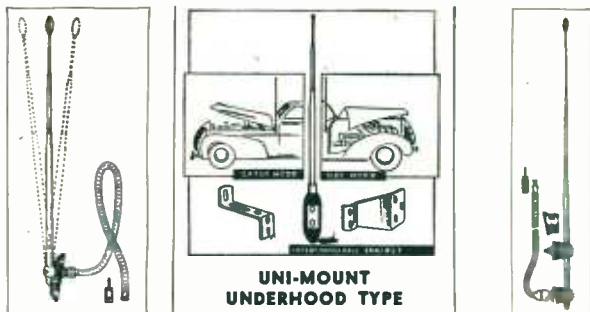
### WARD DELUXE CERAMIC SIDE COWL TYPE

Patented side cowl antennas in 3 and 4 section models using new low-loss ceramic stanchions. Easily mounted on Torpedo and Chrysler bodies with special conversion parts supplied at no extra cost. Scientifically designed for highest signal-to-noise ratio. Shielded lower stanchion minimizes interference. "UNI-PLUG" fits all Motorola and buxnet connectors. With 36" waterproof cable.

97-204. Model 5XXL 3-section. Extends to 63". Wt. 2 lbs. \$2.65  
NET

97-205. 4XL 3-sec. Extends 37 1/2" to 91". Wt. 2 lbs. NET \$2.95  
97-206. 15L 4-sec. Extends 29 1/2" to 100". Wt. 2 lbs. NET \$3.38

## ICA LIFETIME RUSTPROOF AUTO AERIALS



### UNI-MOUNT UNDERHOOD TYPE

Constructed of the finest Admiralty Brass with triple-chrome plating. Guaranteed rust-proof for life of car. Equipped with "static discharge" ball tip. Noiseless, rat-proof construction. Dual brackets of special design permit either underhood or alligator-type mounting. No holes to drill.

97-005. The "WASP." 2-section telescopic. Extends from 23" to 49". With dual brackets and 36" shielded, low-loss lead-in. Shpg. wt. 2 lbs. NET \$2.32

97-006. The "CLIPPER." 3-section telescopic. Extends from 23 1/4" to 72". Dual mounting brackets; shielded 36" lead-in. Wt. 2 lbs. NET \$2.94

97-007. The "NEW YORKER." 3-section telescopic. Extends 31 1/4" to 96". With dual mounting brackets and shielded 36" low-loss lead-in. Wt. 2 1/2 lbs. NET \$3.23

### ROCKER AERIALS

A new adjustable swivel type aerial. For installation on modern streamlined car. Angle easily adjusted. Weatherproof concealed mounting mechanism. Easy to install; requires drilling of only two small holes. Has 36" shielded cable and universal plug-in attachment. Comes assembled.

97-009. 2-Section. Extends 23" to 49". Shpg. wt. 2 lbs. NET \$2.65

97-001. 3-Section. Extends 23 1/4" to 72". Shpg. wt. 2 lbs. NET \$2.94

### SIDE COWL

Made of Admiralty Brass with triple-chrome plating. Rustproof. 36" shielded cable. Requires two holes. Wt. 2 lbs.

97-010. "CHANCELLOR." 3-section. 20" to 65". NET \$2.65

97-011. "COMMON-DOR." 3-section. 23 1/4" to 72". NET \$2.94

97-012. "PRESIDENT." 3-section. 31 1/4" to 96". NET \$3.23

97-013. "COUNSELOR." 4-section. 32" to 108". NET \$3.82

### FENDER MOUNT CONCEALED AERIAL



Specially designed to fit any of the new model streamlined cars. Fittings are constructed so that they may be adapted to any fender contour of any type car and are fully concealed underneath fender. Antenna and lead fittings are permanently weatherproof and secure. Ruggedly constructed of Admiralty Brass tubing with triple chrome plating. Guaranteed to be rust-proof. Easy to install just by drilling mounting holes in fender and side wall. With 48" shielded lead, clamps, and brackets. Shpg. wt. 2 lbs.

97-020. 3-Section. Extends from 3" to 50". NET \$4.09

### DISAPPEARING COWL TYPE AERIALS

Disappears out of sight between side of cowl and kick pad of car. Manually operated. Easily and quickly installed. Single hole mount; requires drilling only one hole 1/2" in diameter. Made of Admiralty Brass tubing, triple-chrome plated. Noiseless, rat-proof, and rustproof. Has "static discharge" ball on top. Equipped with 36" length of shielded, low-loss lead-in. Has universal plug attachment. Fittings will mesh those of all late cars. Will not interfere with vision. Wt. 2 lbs.

97-025. "REGAL." 2-section. Extends 32" to 50". NET \$3.23

97-026. "DE LUXE." 3-section. Extends 32" to 60". NET \$3.53



### FRONT WHEEL NOISE SUPPRESSOR



Eliminates static noise generated in front wheels of automobile. Fits inside front wheel hub cap. Easy to install.

56-680. PAIR..... 15c

### ANTENNA CONNECTOR



For Auto Radio Sets. Terminates Ant. leads.

41-740. EACH..... 6c  
41-741. Package of 12..... 65c

### SHIELDED AERIAL LEAD-IN



No. 20 conductor, low-loss, copper-shielded cable.

49-400. 1/4" Dia. PER FOOT..... 5c  
49-410. 1/2" Dia. PER FOOT..... 5c



### SHIELDED LOOM

For effective shielding.

49-420. 1/4" Inside Dia. PER FOOT..... 7c  
49-430. 1/2" Inside Dia. PER FOOT..... 8c

### PLUGS, JACKS, ADAPTERS



Convenient fittings for terminating auto radio antenna lead-in cables. Av. wt. 1 oz.

FOR MOTOROLA—Fig. A  
48-210. Pin Plug. NET..... 7c  
48-211. Shielded Jack. NET..... 13c

LEAD-IN ADAPTERS—Fig. B  
48-215. For Philips, Motorola, etc. 18c  
48-217. Fig. C. Converts Motorola pin-plug to Deico bayonet fitting. NET..... 15c

### COPPER SHIELDING

Flexible copper shielding for interference circuits. Av. wt. per ft. 4 oz.

| Dia. Open | Stock Number | Per Foot | Dia. Open | Stock Number | Per Foot |
|-----------|--------------|----------|-----------|--------------|----------|
| 1/4"      | 49-350       | 3c       | 1/2"      | 49-370       | 6c       |
| 1/2"      | 49-360       | 4c       | 3/4"      | 49-380       | 6c       |

# MALLORY REPLACEMENT VIBRATORS

## FAMOUS EXACT DUPLICATE VIBRATORS

Mallory replacement vibrators have established an imposing record of outstanding performance based on finest workmanship and quality components. These precision units provide lowest cost-per-hour of actual use. Easy to install. Noted for trouble-free long life and positive starting. All installations are assured of freedom from lead breakage and broken reeds or failures due to lead corrosion. The listing below shows complete line of Mallory 6, 12, 32, and

110 V. vibrators. Included are vibrators to replace defective units in both automobile and household radios. Select your vibrator by manufacturer's type number. If Mallory type number is not known, refer to Encyclopedia or Vibrator Guide listed at right, or order from ALLIED, giving make, model number, tube lineup of set, and type number of original vibrator. We keep in stock all vibrators consistent with W. P. B. regulations. Av. shpg. wt., 1 lb.

| Mallory No. | Stock No. | List Price | NET EACH |
|-------------|-----------|------------|----------|
| 4-4         | 56-000    | \$2.10     | \$1.25   |
| 210         | 56-004    | 9.00       | 5.29     |
| F211        | 56-005    | 9.00       | 5.29     |
| 220B        | 56-006    | 4.80       | 2.42     |
| F220C       | 56-007    | 6.00       | 3.53     |
| 221         | 56-008    | 4.75       | 2.79     |
| F221        | 56-009    | 3.35       | 1.95     |
| 222         | 56-010    | 6.60       | 3.88     |
| 223         | 56-011    | 7.15       | 4.20     |
| F223        | 56-012    | 7.15       | 4.20     |
| 224         | 56-013    | 4.40       | 2.44     |
| 225         | 56-014    | 7.15       | 4.20     |
| 226         | 56-015    | 7.15       | 4.20     |
| 227         | 56-016    | 4.40       | 2.44     |
| 233         | 56-018    | 7.15       | 4.20     |
| 11240       | 56-019    | 7.80       | 4.59     |
| 245         | 56-020    | 5.95       | 3.50     |
| 246A        | 56-021    | 5.95       | 3.50     |
| 245C        | 56-022    | 5.95       | 3.50     |
| 245SW       | 56-023    | 5.95       | 3.50     |
| G245        | 56-024    | 5.95       | 3.50     |
| W245        | 56-024    | 5.95       | 3.50     |
| W245A       | 56-025    | 5.95       | 3.50     |
| 246         | 56-026    | 5.95       | 3.50     |
| 247         | 56-027    | 5.95       | 3.50     |
| W246        | 56-028    | 5.95       | 3.50     |
| 248         | 56-029    | 5.95       | 3.50     |
| 249         | 56-030    | 6.60       | 3.88     |
| G249        | 56-031    | 5.95       | 3.50     |
| F251        | 56-032    | 7.15       | 4.20     |
| 253         | 56-034    | 7.15       | 4.20     |
| G253        | 56-035    | 7.20       | 4.23     |
| 253T        | 56-036    | 4.75       | 2.79     |

| Mallory No. | Stock No. | List Price | NET EACH |
|-------------|-----------|------------|----------|
| 253Y        | 56-037    | \$3.55     | \$2.09   |
| 264         | 56-038    | 5.95       | 3.50     |
| 270B        | 56-039    | 7.15       | 4.20     |
| 271HD       | 56-040    | 7.15       | 4.20     |
| 271         | 56-041    | 7.15       | 4.20     |
| 273C        | 56-042    | 6.60       | 3.88     |
| 273D        | 56-043    | 6.60       | 3.88     |
| 275         | 56-044    | 7.15       | 4.20     |
| 277S        | 56-046    | 7.15       | 4.20     |
| 285SX       | 56-047    | 8.40       | 4.94     |
| 285Y        | 56-048    | 5.95       | 3.50     |
| 286S        | 56-049    | 6.60       | 3.88     |
| G286S       | 56-050    | 9.00       | 5.29     |
| 289         | 56-051    | 9.00       | 5.29     |
| F290        | 56-052    | 6.60       | 3.88     |
| 292         | 56-053    | 4.15       | 2.44     |
| 294         | 56-054    | 3.55       | 2.09     |
| 295SW       | 56-055    | 3.55       | 2.09     |
| F294        | 56-057    | 5.35       | 3.15     |
| 296         | 56-058    | 3.55       | 2.09     |
| 297         | 56-059    | 3.55       | 2.09     |
| F297        | 56-060    | 5.95       | 3.50     |
| 299         | 56-061    | 4.75       | 2.79     |
| 500P        | 56-065    | 3.00       | 1.76     |
| 501P        | 56-066    | 3.00       | 1.76     |
| F502P       | 56-067    | 7.15       | 4.20     |
| 503P        | 56-068    | 4.75       | 2.79     |
| 504P        | 56-069    | 4.75       | 2.79     |
| 505P        | 56-070    | 3.00       | 1.76     |
| 506P        | 56-071    | 4.75       | 2.79     |
| 507P        | 56-072    | 3.00       | 1.76     |
| 508P        | 56-073    | 3.00       | 1.76     |
| 509P        | 56-074    | 3.00       | 1.76     |
| 510P        | 56-075    | 3.60       | 2.12     |
| 514         | 56-076    | 5.95       | 3.50     |



## USE YOUR MALLORY ENCYCLOPEDIA

See the new Mallory Encyclopedia for aid in selecting the proper vibrator for any set. The latest edition, listed on page 89, gives full data. Covers thousands of models and gives original parts numbers. Includes clear and concise instructions for the installation of exact duplicate vibrators. Provides accurate information about vibrator connections by illustrating their actual appearance and base-pin connections. Get your copy of this valuable service guide now.

## FREE VIBRATOR GUIDE

Write for a FREE copy of the Mallory Vibrator Guide. Contains complete listing by sets of vibrator replacements for thousands of auto radios; valuable data on vibrator and automobile set installation, noise suppression, practical servicing, and testing. **37-012. Vibrator Guide, Sent FREE on request.**

## CABLE AND HOUSING

High quality, exact duplicate cable and housing for auto radio remote control systems. Housing is parkerized to prevent rust. Cable ends swaged to prevent unravelling. Same make as used by many leading manufacturers.

### CABLE ONLY (A)

| .130"  | .150"  | Lgth. | NET    |
|--------|--------|-------|--------|
| 56-700 | 56-710 | 18"   | \$0.28 |
| 56-701 | 56-711 | 24"   | .35    |
| 56-702 | 56-712 | 30"   | .43    |
| 56-703 | 56-713 | 36"   | .51    |

### HOUSING ONLY (B)

|        |        |     |        |
|--------|--------|-----|--------|
| 56-720 | 56-730 | 18" | \$0.28 |
| 56-721 | 56-731 | 24" | .35    |
| 56-722 | 56-732 | 30" | .43    |
| 56-723 | 56-733 | 36" | .51    |

## MOTOR NOISE FILTERS



### SINGLE CAPACITORS

Metal-cased compact by-pass condensers designed for installation on all sources of interference, such as generators, ammeters, horns, etc., to eliminate troublesome noise. Use 1 mfd. directly on generator, 1/2 mfd. on ammeter, horn, etc.; 1/4 mfd. on small accessories.

| Stock No. | Mfd. | Size          | Each | 10 For |
|-----------|------|---------------|------|--------|
| 56-510    | 1/4  | 1 1/2"x1 1/2" | 15c  | \$1.35 |
| 56-511    | 1/2  | 1 1/2"x1 1/2" | 13c  | 1.12   |
| 56-512    | 1    | 1 1/2"x1 1/2" | 29c  | 2.61   |
| 56-513    | 1    | 1 1/2"x1 1/2" | 36c  | 3.24   |

### HOME LIGHT FILTER

56-515\* 1/2 1 1/2"x1 1/2" 35c \$3.15  
56-516\* 1 1 1/2"x1 1/2" 50c 4.50  
\*Choke and condenser. †Condenser only.

## MOTOR NOISE FILTER



Combination high-frequency filter and adjustable balancing circuit. Eliminates suppressors. Interference is "balanced out" regardless of frequency, by means of manual induction control. Housed in shielded metal container, 3 1/2"x2 1/4"; with bracket, Wt. 1 lb.  
**56-530. NET.....\$1.62**

## FORD V-8 CONDENSERS

Especially designed to fit the Ford V-8 distributor-head bolts. Eliminates interference. Wt., 8 oz.  
**56-520. Fig. A. For 1934-36.**  
**56-521. Fig. B. For 1937-41. EACH 23c.**

## "A" LINE RF FILTER

Eliminates line noises such as hum, hash, or ripple entering auto set through "A" line or other leads. Especially required for auto sets without built-in filters. In metal case, 2x1 1/4"x7/8". Wt., 8 oz.  
**56-525. NET.....88c.**



## KNIGHT AUTO RADIO SUPPRESSOR UNITS

Compact carbon type motor noise suppressors. For use on any automobile engine. Will cut out practically all ignition interference. Wt., 6 oz.

| Stock No. | Description                                                | Each       |
|-----------|------------------------------------------------------------|------------|
| 56-650    | A. Spark Plug Type                                         | 11c        |
| 56-651    | B. Distributor Type                                        | 11c        |
| 56-652    | C. Cable Type                                              | 11c        |
| 56-653    | E. Short Type                                              | 11c        |
| 56-654    | F. Elbow Type                                              | 11c        |
| 56-655    | Spark Plug Type for New Ford Cars                          | 10 For 99c |
| 56-656    | D. 6,000 ohm. Ford V8 Dist. Brush Type. 33-35 models       | 11c        |
| 56-657    | D. Special small type, 50,000 ohm. For 1936 to 1940 Fords. | 11c        |



## WIRE-WOUND SUPPRESSORS

Eliminates motor noise. Low resistance. 6 oz.  
**56-670. Distributor type. Fig. B.**  
**56-671. Elbow type. Fig. C.**  
**10 For \$3.24. NET EACH.....36c.**

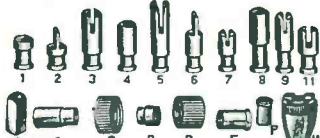
## DISTRIBUTOR SUPPRESSOR

**56-672. Rated at 10,000 ohms. Ideal for use where only one suppressor is needed on distributor. 8 oz.**  
**10 For \$3.69. NET EACH.....41c.**



## SUPER DISTRIBUTOR FILTER

Ignition noise filter. Mounts in distributor lead of car. Shpg. wt., 8 oz.  
**56-673. NET.....\$1.62**



## AUTO REMOTE CONTROL CABLE AND HOUSING FITTINGS

Exact duplicates for most auto radios. Match old fittings with illustrations and refer to list below for correct item. For .130" cables.

| Stock No. | Type | Net | Stock No. | Type | Net |
|-----------|------|-----|-----------|------|-----|
| 56-600    | 1    | 6c  | 56-609    | 11   | 6c  |
| 56-601    | 2    | 6c  | 56-610    | 12   | 11c |
| 56-602    | 3    | 7c  | 56-611    | 13   | 7c  |
| 56-603    | 4    | 6c  | 56-612    | 14   | 6c  |
| 56-604    | 5    | 7c  | 56-613    | 15   | 6c  |
| 56-605    | 6    | 11c | 56-614    | 16   | 6c  |
| 56-606    | 7    | 6c  | 56-615    | 17   | 6c  |
| 56-607    | 8    | 6c  | 56-616    | 18   | 6c  |
| 56-608    | 9    | 11c |           |      |     |

**56-617. Type H. For Motorola. .130".**  
**56-618. Type H. For Motorola. .150".**  
**NET EACH.....29c.**



# HEADPHONES CRYSTAL SETS Accessories

## THE INSTRUCTOGRAPH



### FOR LEARNING CODE THE EASY WAY

A scientifically designed code transmitter. Sends Continental Code perfectly at any desired speed from 5 to 40 words per minute. Signals are heard by student through headphones as they would be heard over the air, but without static and annoying interference. Has controls for pitch and volume. Four binding post terminals are provided for connecting headphones and also a key, so that student can practice sending while listening in on his signals as professional operators do.

#### SPRING WOUND TYPES

**76-110.** Instructograph with spring wound motor, ten rolls of code practice tape, built-in oscillator and code instruction book; but less type 30 tube (1 required), headphones, and key. Shpg. wt., 12 lbs. **NET \$21.80**

**76-111.** Same as 76-110 listed above, but without built-in oscillator. **NET \$20.25**

#### AC MOTOR TYPES

**76-112.** Instructograph with 110 V. 60 cye. AC motor, ten rolls of code practice tape, built-in oscillator, and code book; but less type 30 tube (1 required), headphones, and key. Shpg. wt., 12 lbs. **NET \$34.05**

**76-113.** Same as 76-112 listed above, but without built-in oscillator. **NET \$32.50**

#### ACCESSORIES

**76-005.** Famous McElroy BS-200 streamlined handkey. See page 65 for complete description. Shpg. wt., 1 1/2 lbs. **NET \$2.25**

**59-110.** American Bell Headphones. See description above, right. **NET \$1.05**

The instructograph is available only on orders with priority extension.

### PHILMORE 1 TUBE BATTERY-SET KIT

An easy-to-wire kit which provides surprisingly good results. Tunes 13 to 530 meters covering Amateur, Police, SW, Code, and Broadcast bands. Employs plug-in type coils. Includes coil for broadcast band. Uses one type 30 tube, 1 1/2 volt "A" battery and 1 45-volt "B" Lea-tube batteries, and phones. Wt., 3 lbs. **NET \$1.39**

**83-010.** **NET \$1.39**

**83-510.** Kit of 4 coils (13 to 240 meters). **NET \$72c**

### 2 TUBE AC-DC WIRED SET

This 2 tube wired set operates from 110 V. AC or DC. Uses 2 type 76 tubes (1 used as rectifier). With plug-in coil covering Broadcast band. Coil kit permits tuning Amateur, Police calls, etc. Less tubes and phones. Shpg. wt., 5 lbs. **NET \$3.41**

**83-511.** Kit of 4 coils (13-240 meters). **NET \$72c**

## AMERICAN-BELL HEADPHONES



Sensitive headphones with new inside terminals to avoid shocks or damaging shorts. Produced by one of America's leading manufacturers. Noted for their remarkable tonal fidelity and sensitivity. Lightweight, adjustable, braided-covered headband gives utmost wearing comfort and ease. Magnets are of high permeability alloy, providing exceptional power and long life. Solenoid coils are well insulated and firmly mounted in headphone shell. Caps are molded type. Supplied with 4 1/2 foot cord. Ideal for use with radio and code sets as well as for all general-purpose requirements. Shipping weight, 1 lb.

Available only on orders with priority extension.

### STANDARD DUAL HEADSETS

New inside terminals to eliminate shock. Diaphragm measures 2 1/4". Cords are mercerized cotton-covered tunnel. **59-110.** 2000 ohms. **NET \$1.05**  
**59-111.** 3000 ohms. **NET \$1.33**

### SINGLE HEADPHONES

Improved inside-terminal type. Suitable for hard-of-hearing installations. Spring-metal headband. With cord. **59-112.** 1000 ohms. **NET \$71c**  
**59-113.** 1500 ohms. **NET \$84c**

**59-106.** Quality molded exact-replacement caps for above headphones. **NET EACH .12c**  
**59-105.** Duplicate replacement diaphragms for above headphones. **NET EACH .5c**

## CRYSTALS & CRYSTAL DETECTORS

### OPEN DETECTOR



Universal-joint on swivel arm provides quick, accurate adjustment on any point of sensitive crystal. Comes with crystal. Wt., 8 oz. **52-000.** EACH. **14c**  
**10 FOR \$1.26**

### FIXED DETECTOR



Extremely sensitive. Selected crystals are meter-tested and permanently adjusted. Housed in compact molded case. Eliminates bother of continual adjustment for sensitive spot. Ready for use. 8 oz. **52-001.** EACH. **46c**

### METER TESTED CRYSTAL



These crystals are laboratory tested on very sensitive meters. Crystal is of genuine Galena. Fit all crystal cups. Shpg. wt., 6 oz. **52-008.** EACH. **12c**  
**10 FOR \$1.08**

### 'PHONE CUSHIONS



Ideal for those who wear headphones constantly. Add comfort, prevent fatigue. Made of finest soft sponge rubber. Fit all headphones. Wt., 12 oz. **59-120.** PAIR. **30c**  
**10 PAIRS FOR \$2.70**

### ENCLOSED DETECTOR



A high-grade dustproof glass enclosed detector complete with super-sensitive crystal. Ideal for Crystal-Reflex circuits. Standard in 90% of the crystal sets made. **52-002.** EACH. **23c**

### MOUNTED CRYSTAL



Highly sensitive galena crystal, mounting hardware. Each unit is very carefully selected and pre-tested for sensitivity. Will fit all standard crystal cups. Shpg. wt., 6 oz. **52-011.** EACH. **6c**  
**10 FOR \$54c**

### CAT WHISKERS



Set of three. Correctly designed and made of the finest quality spring metal. Correct tension for all detectors. 5 oz. **52-013.** PER SET. **9c**  
**10 SETS FOR \$1.80**

### "DOOR-KNOB" TYPE PHONE CUSHIONS



Made of soft, flexible rubber. Fits all types of headphones. Shpg. wt., 1 lb. **59-180.** PER PR. **25c**  
**10 PAIRS \$2.25**

## PHILMORE "MONARCH" CRYSTAL SET



Tunes stations as far as 25 miles away with good tone and volume. Has dust-proof glass-enclosed crystal and calibrated dial. Crystalline metal case. Wt., 1 1/2 lbs. **83-002.** NET. **\$1.45**

### I.C.A. "Topnotch" CRYSTAL SET



Dust-proof, glass-enclosed crystal; engraved calibrated-dial; bakelite knob. Selector-coil is wound on solenoid form for better reception. In black crystalline metal case. 1 lb. **83-050.** NET. **\$1.32**

**83-051.** "Topnotch" Crystal Set Kit. For building above set. Wt., 1 lb. NET \$1.18

## BRUSH "HUSHATONE"



New, efficient pillow-type speaker. May be placed under pillow on bed, couch or chair. Enables user to enjoy radio programs in comfort without disturbing others in the room. An invaluable aid and comfort in hospitals, sanitariums, etc. Housed in sponge rubber may be safely dipped into liquid for sterilization. Exclusive Brush principle assures excellent reproduction. Will work with any receiver. Only 4 1/4 x 3 1/4 x 1". With 84" cord. 2 lbs. **59-160.** NET. **\$4.85**

### I.C.A. LOW-LOSS CRYSTAL SET



Inexpensive low-loss crystal set provides sensitive reception. Has adjustable crystal and slider tuning coil. Connect arial and ground, attach phones, and listen in. With crystal and cat whisker. Shpg. wt., 1 lb. **83-052.** NET. **\$79c**

# KNIGHT TRAINING KITS

## ALL-PURPOSE KITS FOR TRAINING IN MILITARY COMMUNICATIONS

Just as **ALLIED** led the field in supplying peace-time "Build-Your-Own" kits, so **ALLIED** now leads in supplying the armed services and government-sponsored radio schools with kits and supplies for the gigantic war training program. The kits listed on this page represent some of the most popular types created by **ALLIED** engineers in co-operation with the Army and Navy. Each kit was carefully planned to provide not only a dependable unit, but one that is easy to assemble and wire, yet adequately demonstrates principles of Radio. Each kit is supplied complete, as listed, with punched and formed chassis, schematic diagram, solder, wire, and every part to the last screw. Well-known, standard brand parts are used exclusively. The 5-tube

AC-DC superhet receiver kit is in use by all types of schools. The basic-training transmitter kit, especially designed for Army Air Force schools, is fast becoming the most popular transmitter kit produced. The Signal Corps type training kits, listed at the bottom of this page, were designed for, and are in wide use by the U. S. Army Signal Corps in their Mechanic Learner and Junior Radio Trainee projects. The Signal Corps kits illustrated below are, from left to right, vacuum tube voltmeter, utility power supply, utility audio amplifier and signal generator. Least critical materials are used throughout. Due to the supply situation, these kits are available only on quantity orders carrying high priorities. Write for information.

### KNIGHT 5 TUBE AC-DC SUPERHET KIT



Latest **KNIGHT** 5 Tube AC-DC Superhet Receiver kit. Thousands have been sold to radio training schools throughout the country for use as an educational project. Kit contains all parts needed for building a complete receiver. Includes formed and punched chassis (no drilling necessary), tubes, speaker, schematic and pictorial diagrams. Instructions are very easy to follow. Assembly and wiring are simple; no special tools needed. A screwdriver, pliers and soldering iron are all that are needed. Tunes entire broadcast band from 540 to 1730 kilocycles.

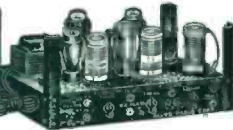
Easy-to-read illuminated airplane dial. Self-contained loop antenna does away with outside aerial, but extra primary link is furnished for connection to outside aerial if preferred. Automatic volume control minimizes fading. Includes excellent 5-inch **Permalac** speaker.

#### HIGH-QUALITY PARTS—LATEST SUPERHET CIRCUIT

Oscillator biases RF and IF stages; contact potential biases audio stage; inverse-feedback in power stage; high capacity filtering, etc. Can be used to illustrate RF, IF and audio amplification, RF conversion, signal detection, rectification, and filtering. Five latest designed tubes, including dual-purpose types, provide seven-tube performance. Uses a 12SA7 as a converter; a 12SK7 for IF amplifier; a 12SQ7 as second detector, AVC, and first audio; a 50L6GT for beam power amplifier; and a 35Z5GT power rectifier. Truly one of the finest kits ever offered for basic educational purposes at this low price. Instructions, write for descriptive circular, circuit diagram and assembly instructions. Shpg. wt., 6 lbs.

**83-307. Complete Kit, NET. \$10.75**  
**83-308. Cabinet for above.** Attractive table-type cabinet in rich brown pebbled finish front. NET. \$2.95

### KNIGHT BASIC-TRAINING TRANSMITTER KIT

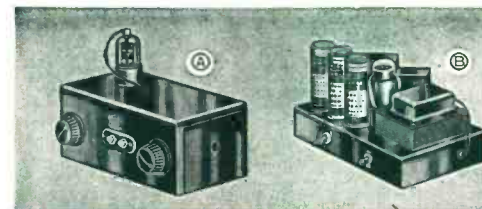


An outstanding training need for radio classes. Designed by **ALLIED** engineers especially for the U. S. Army Air Force. A complete kit of parts, including tubes, coils, punched and formed chassis, condensers, resistors—in fact everything except mike, antenna and meter. Even neon bulb for testing and low-resistance Marda bulb for dummy antenna are furnished. Parts build up to complete transmitter with 6L6G master oscillator, 6L6G power amplifier, 6L6G modulator, 5X3G rectifier, including antenna tuning circuit. May be used with any single-button carbon microphone. Includes special jack for Signal Corps T17 mike. Operates into low-impedance airplane-type antenna. Covers frequency range of 3.5 to 5.5 MC. Every engineering consideration was used to make this kit an ideal training project. Quality parts throughout. Maximum DC voltage is 250 for safety.

#### ENGINEERED TO TEACH TRANSMITTER THEORY

Off resonance operation will not injure tubes. Three switches provide flexibility. Neutralization is easy by means of grid meter. Jacks provided for using 0-15 MA meter (meter not included). Meter shunts supplied for reading 0-150 MA in all cathode circuits where 0-15 MA meter having 2-ohm internal resistance is used. Corner posts on chassis permit placing work in any position. Front-of-chassis controls are clearly marked. Chassis measures 17" x 10" x 3", finished in durable smooth black enamel. Corner posts have top edges turned over to reduce marring of work tables. The complete kit is packed in compartmented box with location of parts printed on lid for easy stock control. Write for free copy of schematic diagram measures 17" x 11" and includes chassis layout and list of parts. Schools under Army or Navy contract to teach radio will find this kit ideally suited to their program. Write for free copy of schematic diagram and further details. For 115 volt AC, 60 cycle operation. Shipping weight, 20 lbs. **\$29.95**

**83-460. Complete Kit, NET.**



## SIGNAL CORPS TYPE TRAINING KITS

### 1-TUBE REGENERATIVE RECEIVER KIT

The first basic training kit for Signal Corps J.R.T. course. A complete kit of parts to build and operate a simple one-tube battery-operated regenerative receiver. Used to teach fundamentals of regenerative detection and oscillation. Furnished with broadcast band plug-in coil. Long and short-wave coils available for extra frequency coverage. Complete with 1E4G tube, batteries, headphone, instructions, etc. Chassis is formed and punched. Shpg. wt., 15 lbs. **\$6.20**

**83-465. NET.**

### VACUUM TUBE VOLTMETER KIT

Complete kit of parts for construction of slideback type vacuum tube voltmeter. Simple to construct and operate. Will measure DC and peak AC voltages without loading circuit under test. All parts furnished, including formed and punched chassis, 1H5GT tube, batteries, etc. Requires external DC voltmeter and 0-1 milliammeter, not furnished. Use kit for teaching principles of design and operation of vacuum tube voltmeters and as an instrument for making voltage measurements on other projects. Shpg. wt., 5 lbs. **\$5.35**

**83-470. NET.**

### FIELD STRENGTH METER KIT

All parts to build compact field strength meter and absorption wavemeter. Built-up unit capable of making comparative measurements of transmitter carrier strength. Four-inch tuning dial easily calibrated. Form and wire furnished for handwinding coil. Kit is complete with all parts, tube and batteries, less only 0-1 milliammeter, 1C4GT battery-operated tube is used in modified V.T.V.M. circuit, measuring RF voltage across coil. Capable of accurate frequency measurements. Shpg. wt., 5 lbs. **\$7.25**

**83-475. NET.**

### UTILITY POWER SUPPLY KIT

Provides sufficient power for receivers, amplifiers and small transmitters. Hum-free. Has excellent voltage regulation. Operates either of the two projects listed below. Includes chassis, tube, over-size power transformer, two 30-henry filter chokes, filter condensers, adjustable voltage divider, etc. Switch provided for cutting input filter condenser in or out. Also has AC on-off switch. Output, 225 V. or 300 V. at 100 MA, 6.3 at 4.5 A. Shpg. wt., 14 lbs. **\$12.45**

**83-480. NET.**

### UTILITY AUDIO AMPLIFIER KIT

Kit of parts to build quality audio amplifier which also can be used to modulate small transmitter. Has 6C5GT voltage amplifier, resistance coupled to 6V6GT beam power amplifier stage. Output transformer has 4, 8, 15 and 500 ohm taps. 1 volt peak input produces 5.5 watts output. Excellent project for study of audio frequencies when used with audio oscillator and oscilloscope. Requires only single-button mike and transformer to convert to modulator or P.A. amplifier. Complete kit includes tubes and 6" PM speaker. Shpg. wt., 8 lbs. **\$11.25**

**83-485. NET.**

### SIGNAL GENERATOR KIT

Kit of parts to build an RF signal generator that may be used for receiver alignment and oscillator circuit demonstration. All parts supplied, including formed and punched chassis and panel, vernier dial, plug-in coil form and wire. Circuit patterned after commercial signal generators. Variable output may be calibrated by means of V.T.V.M. Provisions for external audio modulator. Uses 6J7GT in electron-coupled circuit. 730 mmf. tuning condenser provides wide band coverage. Shpg. wt., 5 lbs. **\$8.25**

**83-490. NET.**



# ALLIED'S OWN RADIO PUBLICATIONS



## A PRACTICAL RADIO EDUCATION WITH RADIO'S GREATEST BOOK VALUES

Up-to-date, practical Radio and Electronic publications prepared by the **ALLIED** Technical Staff and leading technical experts to assist beginners, students, instructors, technicians, and advanced radio men. These books are an excellent aid during the period of education and are invaluable for reference during actual work in the field of operation.

Constant revision of all issues assures latest technical data. These **ALLIED** books are worth much more than our extremely low prices indicate. Get all six! Our Educational Division is constantly in touch with the latest vocational training programs in the field of radio and electronics, and will be glad to answer your questions.

Special prices on **ALLIED** 10c publications (single file or assorted): 12 for \$1.00; 25 for \$2.00; Postpaid in U.S.A.

**ALLIED'S RADIO BUILDER'S HANDBOOK.** Ninth edition. Invaluable aid for radio-training classes. Simplified outline of fundamental radio theory. Explains radio set parts and functions, magnetism, resistance, electron theory, inductance and reactance, capacitance, how-to-read schematic diagrams, etc. Easily-built projects for lab. work permit application of radio theory to actual use. Includes: receivers, transmitters, amplifiers, phono-oscillators, etc. Illustrated. **10c**

**37-750. Postpaid in U.S.A. .... 10c**

**ALLIED'S DICTIONARY OF RADIO TERMS.** 1943 edition. Miniature radio encyclopedia with over 800 commonly used terms in Radio and Electronics. Easy-to-understand definitions. Ideal for reference use with any text in radio training classes. Gives schematic symbol chart and RMA color code guide. Indispensable for the student and beginner; excellent reference for advanced radio men. Handy 6" x 3" size. 36 pages. Latest revised edition. Illustrated. **10c**

**37-751. Postpaid in U.S.A. .... 10c**

**ALLIED'S RADIO-FORMULA AND DATA BOOK.** Edited by Nelson M. Cooke, Chief Radio Electrician, U. S. Navy. Contains essential mathematical formulas, tables, miscellaneous data and standards commonly used in the field of Radio and Electronics. Indispensable for all students, teachers, radio technicians and radio training classes. Handy, pocket-size condensed edition of 37-754 Handbook; convenient arrangement permits instant reference. **10c**

**37-752. Postpaid in U.S.A. .... 10c**

**ALLIED'S RADIO CIRCUIT HANDBOOK.** Compiled for radio-training classes. Handbook of most popular radio circuit diagrams. Aids students in understanding principles of radio by knowledge of how radio circuits operate. Illustrates and explains basic circuits and their applications in complex radio design. Progresses from simple crystal set through 5-Tube Superhet and other electronic units. Includes the most popular **ALLIED** circuit kits. 40 pages. 8 1/2" x 11" **10c**

**37-753. Postpaid in U.S.A. .... 10c**

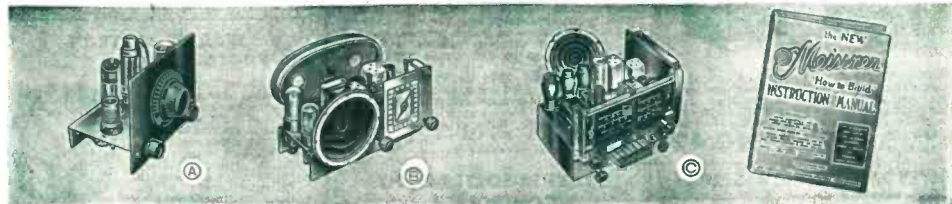
**ALLIED'S RADIO DATA HANDBOOK.** Edited by Nelson M. Cooke, Chief Radio Electrician, U. S. Navy. A comprehensive handbook of Formulas, Data, Standards, Tables and Charts used in solution of everyday problems in Radio and Electronics. A practical reference book for students, servicemen, engineers, instructors, etc. Packed with essential information. An excellent supplementary text for radio schools. Has handy cross-reference index. 48 pages. Size 6" x 9" **25c**

**37-754. Postpaid in U.S.A. .... 25c**

**MANUAL OF SIMPLIFIED RADIO SERVING.** By Major J. G. Tunison, U. S. Army Signal Corps, formerly electronics engineer with "ERPI" and Altice Service Corporation. A pocket-size manual of practical field-tested short-cut methods for servicing radio sets, sound systems and electronic equipment in general, using only the simplest equipment and tools. A valuable booklet for use in the classroom and in the field. For students, servicemen and technicians. 3 1/2" x 5 1/2" 40 pages. **10c**

**37-755. Postpaid in U.S.A. .... 10c**

SCHOOLS, COLLEGES, LIBRARIES, BOOK STORES, WRITE FOR QUANTITY PRICES



## MEISSNER RADIO TRAINING KITS

Precision-built receiver kits especially designed for classroom use in radio training schools. By following diagrams and instructions furnished,

even a beginner can construct and operate these kits. Each kit is as carefully engineered as larger standard production type receivers.

### STUDENT MIDGET KITS

Each kit below includes broadcast-band coil.

**83-420. 1-TUBE KIT.** Fig. A. For head-phone reception. Uses 1-1E4G tube. 1-1 1/2" V. "A" and 1-45 V. "B" battery. Less tube and batteries. Shpg. wt. 3 lbs. **\$2.23**

**NET.**

**83-421. 2-TUBE KIT.** Requires 1-1C5G, 1-1E4G tube; 1-1 1/2" V. "A", 2-45 V. "B", and 1-7 1/2" V. "C" batteries. Less tubes and batteries. Shpg. wt. 3 lbs. **\$3.97**

**NET.**

**83-422. 3-TUBE KIT.** Requires 1-1C5G, 1-1E4G, 1-1H5G tubes; 1-1 1/2" V. "A", 2-45 V. "B", 1-7 1/2" V. "C" batteries. Less tubes and batteries. Shpg. wt. 3 lbs. **\$5.00**

**NET.**

### AC-DC KITS

**83-430. 2-Tube Kit.** As 83-420 above, but uses 1-76 Det., 1-76 Rect. Less tubes. Shpg. wt. 3 lbs. **\$4.12**

**NET.**

**83-431. 3-Tube Kit.** Like 83-421 above, but uses 1-76 detector, 1-76 audio, and 1-76 rectifier. Less tubes. 3 lbs. **\$4.70**

**NET.**

### ACCESSORIES FOR ABOVE

**83-425. 70-200 Meter Plug-in Coil.** EACH **\$1.25**

**83-426. 35-70 Meter Plug-in Coil.** EACH **\$1.25**

**83-427. 17-35 Meter Plug-in Coil.** EACH **\$1.25**

**83-428. 545-1500 Meter Coil.** EACH **\$1.03**

Select tubes and batteries from pages 2, 3, and 13 of this catalog. Headphones on 62-63.

### 5-TUBE AC-DC SUPERHET KIT

**Fig. 5.** An efficient 5-tube AC-DC superhet receiver kit designed to meet the requirements of the majority of radio training schools who are looking for the finest possible receiver at the lowest cost. Circuit features stability of operation. Component parts fit chassis accurately. Easy to assemble. Easy to wire. Tuning range broadcast band from 550 to 1600 KC. Has self-contained, sensitive loop aerial—no outside aerial required. Efficient AVC circuit minimizes fading. Includes high quality 5" dynamic speaker. Uses 1-12SA7 (or 12SA7GT), 12SK7 (or 12SK7GT), 12SQ7 (or 12SQ7GT), 50L6GT, and 35Z5GT rectifier. Assembly is extremely simple. Complete with punched chassis, tubes, speaker, all parts and instructions. For 110 V. AC or DC. Wt., 6 lbs. **\$14.75**

**83-450. NET.**

### 6-TUBE AC-DC SUPERHET KIT

(Not illustrated). A 6-tube AC-DC 2-band superhet with tuned RF stage and large glass-scale slide rule dial for manual tuning of the broadcast band (540-1620 KC) and short-wave band (5.7-18.3 MC). Has self-contained, sensitive loop aerial, automatic volume control, and efficient 4" x 6" elliptical electro-dynamic speaker. Uses 12SK7 IF, 12SA7 (or 12SA7GT) power, and 35Z5GT rectifier tubes. Complete with punched chassis, speaker, and all parts including tubes. The inclusion of an RF stage and a short-wave band, provides extra training value. For 110 V. AC or DC. Shpg. wt., 8 lbs. **\$19.10**

**83-451. NET.**

### 9-TUBE AC SUPERHET KIT

**Fig. 6.** This 9-tube 3-band AC superhet receiver has been designed to serve the advanced radio student. It is truly a deluxe kit, providing every possible feature required to give the student a first-hand knowledge of present-day receivers. Diagrams and instructions very easy to follow. Large glass-scale slide-rule dial tunes the 3 bands: 135 to 550, 40 to 136, and 12.5 to 40 meters. Many other features include automatic push-button tuning for any of 6 selected broadcast band stations, 6" electro-dynamic speaker, variable tone control, electric tuning eye, automatic volume control, built-in loop antenna, and push-pull audio output. Also has connections for phono pickup and FM adapter. Tubes used: 2-6SF5, 2-6F6G, 1-5V3G, 1-6H6, 1-6SK7, 1-6SA7, and 1-6SG7. Furnished complete with all needed parts and tubes. Size 9 1/2" x 9" D. 8 1/2" H. For 110-120 V., 50-60 cycle AC operation. Wt., 20 lbs. **\$48.90**

**83-452. NET.**

### MEISSNER INSTRUCTION MANUAL

For beginners, advanced students, and instructors. Contains complete constructional data on Meissner kits, adapter units, etc. Gives operator, varactor tube, and servicing data on 13 complete assemblies, including R-M receivers, phono-recorder, test instruments and amateur equipment. Technical section includes useful data on coil design, radio formulas, etc. Fully illustrated with pictorial and schematic wiring diagrams. 168 pages. Shipping weight, 1 lb. **48c**

**37-721. NET.**

# PHOTO-ELECTRIC EQUIPMENT

## WORNER "FOTO-ELECTRIC" PRODUCTS

We can supply Worner "FOTO-ELECTRIC" units for industrial uses such as automatic sorting, grading, or counting; for machinery protection or control; for heat, light or smoke control, etc. Send us details of your requirements for complete information and prices on equipment designed to meet your needs. Worner "FOTO-ELECTRIC" products are the finest units available. The Worner equipment on this page is also available for other voltage inputs. Write us for prices.



### ANTI-SABOTAGE EQUIPMENT

A highly dependable and extremely flexible photo cell system designed to provide maximum protection for the war plant, warehouse, etc. Consists of robot and light source, illustrated at left with type of weatherproof case used on each unit. Cases include visor (not illustrated) to protect lenses against rain or snow. For indoor or outdoor use. Projects a beam of infra-red (invisible) rays which, when interrupted, actuates a relay which, in turn, operates an alarm of series of alarms. The alarm may be local and may also be hooked up to the closest police headquarters. Details: Two standard models are available with ranges of 250 ft. and 500 ft., respectively. Where greater coverage is required, send detailed information and sketches showing area to be protected, and quotations will be promptly supplied covering a system engineered to your particular needs. Current capacity is 3 amperes at 110 volts AC non-inductive, and 1 ampere inductive load. Case is of 14-gauge steel, 7" x 5 1/2" x 10 1/2", finished in brown wrinkle enamel. With mounting flange to accommodate 1 1/2" pipe. For use from 115 volts, 60 cycles AC. Complete with tubes. **\$124.95**

**77-007. Model 2250.** Has 250 foot range. **NET.....\$124.95**  
**77-008. Model 2500.** Identical with above system, but has range of 500 feet. **\$194.77**  
**NET.....\$194.77**

**37-145. Bulletin No. 105.** Provides brief general description of system and a few suggested applications which may be of value in helping you select system for your requirements. **FREE.**

## "FOTO-ELECTRIC" EQUIPMENT FOR GENERAL APPLICATIONS

### PHOTO-CELL COUNTER

The "Photo-Cell Counter" is a two-unit system consisting of models 2801 receiver and 2802 light source. It has a multitude of commercial applications: can be used to count traffic to count any type of product traveling along a conveyor belt, for grading or sorting articles of different sizes, colors or weights, to control turbidity, transparency, liquid levels, temperature, safety devices on punch presses, controls and cutters on printing presses, etc. Will operate relay up to 500 times per minute.

**77-009. Model 2801 Receiver.** Consists of light sensitive cell, amplifier, relay and sensitivity control. Mounted in 10-gauge gray crackle steel case, 7" x 6 1/4" x 4 1/4". Equipped with wall brackets for easy mounting. For use from 115 volts, 60 cycles AC. **\$40.42**  
**NET.....\$40.42**

**77-010. Model 2802 Light Source.** For use with Model 2801 receiver at left or any other similar type of photo cell relay. Equipped with a special low-wattage bulb. Throws concentrated beam. Gray crackle finish steel case, 7" x 7" x 4 1/4". For 115 volts. **\$8.82**  
**60 cycles. NET.....\$8.82**

### CONVEYOR COUNTER ASSEMBLY

A portable photo cell system which can be attached to a 15 1/2" or 17" Standard or Lamson conveyor and used to actuate a counter. Height can be adjusted to count tall or short objects. Consists of four pieces: an extension photo cell, extension light source, amplifier and relay, and a mounting plate to which the three above pieces are fastened and which, in turn, clamps to conveyor. Mounting plate will also accommodate electrical control. For 115 volts, 60 cycles AC. **\$55.12**  
**77-011. Model 2001. NET.....\$55.12**  
**77-012. Model 2002.** Same as above but for permanent mounting. **NET.....\$55.12**

### SCANNER-SORTER-LIGHT CONTROL

Designed for counting, sorting, scanning, light control, door opening, safety devices, etc. Model 2104, the amplifier, consists of a light sensitive cell, an amplifier, relay, built into gray crackle-finish metal case, 7" x 6 1/4" x 4 1/4". For 115 volts, 60 cycles AC. **\$44.10**  
**77-013. Model 2104 Amplifier. NET.....\$44.10**

**77-014. Model 2204. Extension Photo-cell.** In metal case. With pipe mount. **\$6.23**  
**77-015. Model 2204. Extension Light Source.** In metal case. With pipe mount **\$6.23**

### PHOTO-CELL MIRROR



A scientifically ground mirror for reflecting light beam back and forth across a room. Adjustable for maximum concentration. With mounting bracket, 8" x 4" x 2 1/2". Shipping wt., 3 1/2 lbs. **\$3.38**  
**77-001. NET.....\$3.38**

### STANDARD PHOTO CELL

A highly sensitive gas-filled photo cell tube which can be used for almost all electric eye applications. Accurately designed and constructed to react instantly to proper value of light intensity or color. Fits any 4-prong socket. Measures 1 1/2" high over socket. Shpg. wt., 8 oz. **\$2.20**  
**77-003. NET.....\$2.20**



### KNIGHT AC-DC PHOTO-CELL AND RELAY KIT

A beginners' highly practical photo-cell kit. Splendid for training purposes. Provides the student with a medium for learning the amazing possibilities of electronic control whereby a variation in light intensity can be used to operate burglar alarms, for controlling lights and bells, announcing purposes and numerous other applications. An increase or decrease of light intensity controls unit. Relay is rated at 2 amps, non-inductive at 115 V. AC. Chassis shields photo-cell from unwanted light. Kit includes all parts, drilled chassis, 10T relay, tube, diagram and instructions. Size: 5 x 4 x 2". For 115 V. AC/DC. Wt., 2 1/2 lbs. **\$6.25**  
**83-710. NET.....\$6.25**

**83-715. ECONOMY LIGHT SOURCE KIT.** A complete, low-cost kit for building a dependable light source. Includes special 50-watt bulb. Flows a concentrated beam of light 50 feet. Easy to build. Includes metal cabinet with focusing lens. Size: 4 1/2" x 4 1/2" x 2 1/2". For use from 115 volts, AC or DC. Shpg. wt., 2 1/2 lbs. **NET.....\$2.95**

## EBY'S P.E. EQUIPMENT

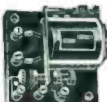
### PHOTO CELL

Excellent for use in all types of photo-electric circuits 1 1/4" diam., 1/4" high. Fits four prong socket. Shock and moisture proof. 1/2 lb. **\$2.65**  
**77-030. NET.....\$2.65**



### SENSITIVE RELAYS

Designed for direct, or for full or half-wave rectified current circuits, where operating power is small. Ideal for photo-cell equipment, vacuum tube amplifier circuits, etc. Operates on as low as 1.25 milliwatts of power. Silver contacts carry 2.5 Amps. at 115 V. A.C. or 1.5 Amps. at 115 V. DC. Shpg. wt., 1 lb. **\$5.00**  
**77-050. 1000 ohm. NET.....\$5.00**  
**77-051. 5000 ohm. NET.....\$5.14**  
**77-052. 5000 ohm. NET.....\$5.29**  
**77-053. 10000 ohm. NET.....\$5.59**



### ELECTRIC EYE IN THEORY AND PRACTICE

A new and improved handbook published by Eby. Provides data on photo-cell control theory and practice based on years of experience. Describes in detail the underlying principles of photo cells, indispensable for the student. Covers the basic knowledge which serves as a foundation for understanding the increasingly important field of electronic control by means of the photo cell. 28 pages. **\$4.40**  
**77-930. NET.....\$4.40**



### BRADLEY LUXTRON PHOTO-ELECTRIC CELL

These Photo-Electric Cells are finding wide application in the measurement and control of light and in the automatic control of many industrial processes. They convert light energy into electrical energy without auxiliary voltage sources. Sufficient current is developed for direct operation of instruments and sensitive relays—no amplifiers are necessary. Due to special developments, these cells have extremely low variations in electrical characteristics with changes in temperature. Plug into a standard 4 prong tube socket. Size: 2 1/4" x 2 1/4" x 1/4". Shipping weight, 8 oz. **\$7.25**  
**77-040. NET.....\$7.25**



### PHOTOELECTRIC CONTROL BOOK

An authoritative, up-to-date book on photo cells, relays and light sources. Gives valuable data on practical applications, how to make installations, and how to solve common servicing problems. Profusely illustrated, 40 pages. **\$2.95**  
**37-760. NET.....\$2.95**



### ICA CODE PRACTICE SET

It's easy to learn radio signals, telegraph code and blinker or navy signaling with this set. Permits sending and receiving between two stations. Comprises high-frequency buzzer, blinker light, key, and telegraph sounder. Instructions on signal box. Double unit consists of two complete instruments and 50 feet of wire. Two standard flash light batteries used with each set. Loss batteries, priority required. 1 1/2 lbs. **\$3.32**  
**76-150. Double Unit. NET.....\$3.32**  
**76-151. Single Unit. Loss wire and batteries. Wt., 1 1/2 lbs. EACH.....\$1.62**





# ATTACHMENTS

# HEADPHONES Accessories

## BRANDES SUPERIOR PHONES



A high quality, ruggedly-built headset which has been a favorite for years. Outside terminal type, with metal cases and bakelite caps. Diaphragm diameter is 2 1/2". Has double coils, two in each receiver; adjustable flexible metal split headband; 4 1/4 foot cotton-covered cord. Magnets of high-resistivity are 1/4" square. Resistance, 2400 ohms per pair. Wt., 1 1/2 lbs.

59-130. NET.....\$1.87

## BRANDES "ADMIRAL" PHONES

Similar to the phones above, but with terminals inside case. Have metal cases, bakelite caps, double-coil magnets, etc. Sturdy and lightweight. Ship wt., 2 lbs.

59-135. 2000 Ohms. NET.....\$1.97

59-136. 3000 Ohms. NET.....\$2.14

59-137. 5000 Ohms. NET.....2.57

## CAPS AND DIAPHRAGMS

59-138. Caps. EACH.....18c

59-139. Diaphragms. EACH.....5c

## CANNONBALL MASTER PHONES

An improved high-resistance headset that faithfully reproduces every type of radio broadcast. Splendid for use where multiple installations are required. Cases are metal with bakelite caps and inside terminals to prevent shock. Has sturdy magnet of 1/2" steel in each phone. Headband is easily adjusted by these headphones, although low in price, are ideal for crystal sets, battery operated radios, and for multiple head-phone systems such as are used in hospitals, schools, prisons, sanitariums, etc. So widely used for hard-of-hearing amplifiers. Recommended for all uses requiring a well-designed headset. Ship wt., 2 lbs.

59-125. 3000 ohms. NET.....\$1.93

59-126. 5000 ohms. NET.....\$2.43

59-127. Replacement bakelite cap for above headsets. NET EACH.....18c

59-128. Replacement diaphragm for above headsets. NET EACH.....5c

## ICA HEADPHONES



A high-quality pair of magnetic type headphones at a moderate price. Extremely lightweight. Can be worn for long periods without discomfort. Cases are made of heavy drawn metal with polished-nickel finish. Caps are bakelite moulded. Heavy curved wire headband with woven band cover which provides for comfort in use. Has sufficient tension to fit snug without discomfort to the wearer. Phones are swivel mounted and are adjustable. Thumb-screws for locking adjustment in fixed position. Ship wt., 2 lbs.

59-105. 2000 ohms. NET.....\$2.79

## RUBBER 'PHONE CUSHIONS

Finest quality car cushions. Used by leading airlines, provide maximum comfort. Fit all type phones. Ship wt., 12 oz.

59-122. PER PAIR.....65c

10 PAIRS.....\$5.85

Because of the many critical materials needed in their construction, headphones of all types are available only on orders with suitable priority rating from industries, schools, laboratories, and others who are directly engaged in the War effort.

## AMERICAN BELL INSTITUTIONAL HEADPHONES



Also ideal for use with crystal sets, battery radios and low-cost hearing aids. Every feature required for institutional use has been incorporated in these headphones. They are particularly suited to general purpose use in code training classes, laboratories, inspection test work, etc., where careful handling is not always possible. Shipping weight, 1 lb.

NET.....\$1.25

59-101. 3000 ohms. NET.....\$1.45

59-105. Replacement diaphragms for above phones. NET EACH.....5c

59-106. Bakelite caps. NET EACH.....12c

## ACME DELUXE PHONES



Sensitive and practical phones for every headset use. "Light as a feather." Each unit weighs less than 1 1/2 ounces, total weight is only 6 ounces. Recommended especially for code training classes, hard-of-hearing and multiple phone installations. Cap and shell are molded of bakelite with light-tension flexible headband. Cord is 4 1/2 ft. braided-cord. Phone tip terminals. Ship wt., 12 oz.

59-070. 2000 ohms. NET.....\$1.45

## ACME SINGLE HEADSETS

A lightweight single unit headphone, with headband as described above. 8 oz.

59-072. 1800 ohms. NET.....89c

## CAPS AND DIAPHRAGMS

59-012. Replacement diaphragms for Acme Deluxe phones. NET EACH.....9c

59-075. Replacement caps. EACH.....26c

## BRUSH CRYSTAL HEADPHONES TYPE A

High-impedance headphones of the piezo-electric crystal type. Extremely light in weight, and very sensitive to weak signals. For radio training classes, in measuring work, etc. Unusually high impedance. Response is from 100 to 10,000 cycles. Cone-type diaphragm, for use in direct current circuits. A small blocking condenser is necessary. Molded plastic case shaped for maximum comfort. Low power consumption, high quality reproduction. With 5 ft. cord. Weight, only 1 1/2 oz.

59-151. NET.....\$6.47

## SINGLE PHONE TYPE A

Like 59-151 phones above, but with single phone, cord, and headband. 8 oz.

59-186. NET.....\$3.47

## TRIMM FEATHERWEIGHTS

Compact headphones, weighing only 4 oz. Have forged magnets of high resistivity, bakelite shells and caps, and adjustable spring-metal headband. Diameter 2 1/2". 24,000 ohm type for weak signals, 6 ft. plastic-covered cord. Shipping weight, 1 lb.



59-000. 4000 ohm Standard.

59-001. 24,000 ohm Special.

NET EACH.....\$5.88

59-012. Extra Diaphragms. EACH.....9c

59-013. Replacement Caps. EACH.....38c

## TRIMM "DEPENDABLE" PHONES

A high-grade, low-priced headset. A good dependable phone for quantity purchasers. Will give exceptionally efficient performance in any application. Bakelite shells and caps. Chrome steel magnets. 2000 ohms resistance. 6-ft. cord. Fabric-covered headband. 1 1/2 lbs.



NET.....\$2.23

59-026. As above, but single phone. 1000 ohms. 1 lb. NET.....\$1.18

59-030. Caps for 59-026. 59-021, 59-025 and 59-026. EACH.....29c

59-031. Diaphragms for 59-026, 59-021, 59-025 and 59-026. EACH.....9c

## TRIMM "PROFESSIONALS"

A high quality, medium priced pair of standard magnetic-type headphones for general purpose duty. Bakelite case and cap. 6-ft. cord. Terminals inside case. Shipping weight, 1 lb.

59-020. 3000 Ohms. NET.....\$2.73

EACH.....\$2.73



## TRIMM ARMY-NAVY TYPE HEADPHONES

Very sensitive. Meet both Army and Navy specifications. Immediate duty. Bakelite case and cap. 6-ft. cord. Terminals inside case. Shipping weight, 1 lb.

59-041. 3000 Ohms. NET.....\$10.95

59-042. Extra Diaphragms for above and for Western Electric headphones. EACH. 53c

59-042. Extra Diaphragms for above.....12c



## HEADPHONE CORDS

Copper tinplate inner conductor covered with closely-woven cotton braid. Ship wt., 3 oz.

## SINGLE CORDS

59-200. 4 foot cord. Tips on one end; spade-lugs on other. For speakers or single phone.

59-203. 4 foot cord. Tips on both ends. 14c

NET.....\$1.25, 100 for \$12.10.

## DOUBLE CORDS

59-205. Spade-lugs on one end; tips on other. 5 foot cord. For use with phones.

59-206. Tips on both ends. 5 foot cord. 27c

NET EACH.....10 for \$2.43, 100 for \$23.25.

59-220. Small spade lugs on one end; tips on other. 5 foot cord. For use with phones.

59-210. NET.....\$4.00, 100 for \$40.00.

## CANNON RUBBER CORDS

Durable rubber double head-set cord, 6 feet long. 14 ft. tip on one end; spade-lugs on other. Ship wt., 1 lb.

59-210. NET.....\$5.00, 100 for \$50.00.

# McELROY

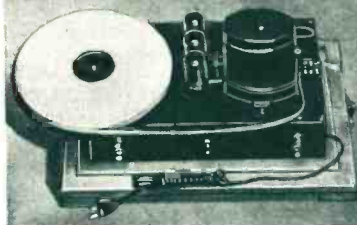
## THE WORLD'S FINEST FROM THE LABORATORY OF T. R. McELROY—

**USED BY  
THE U. S. ★  
ARMED FORCES**

The code transmitting and receiving equipment listed on these facing pages is, without doubt, the finest apparatus of this kind available today. Each unit has been carefully engineered and produced in the laboratory and factory of T. R. McElroy, world-famous designer and builder of radio-telegraph equipment. Many outstanding features, insuring accurate, dependable performance over

long periods of hard and constant use, have been incorporated. These are the result not only of McElroy's 30 years experience in the radio-telegraph field, but also the development of specifications submitted over a period of years by U.S. Army and Navy officers and men who have adopted McElroy equipment for both educational and field work. The U.S. Army, Navy, and Coast Guard.

### McELROY G-813-A ELECTRONIC KEYER



#### MODEL G-913-A RECORDER WITH TAPE PULLER MODERATE SPEED TYPE, IDEAL FOR INDIVIDUAL OR GROUP TRAINING

The Model G-913-A moderate speed recorder is designed primarily to record code signals in clear, strong lines on 1/4" tape. These recordings can be made with a key or bug or from the output of a communications receiver for off-the-air recordings. Will operate at any desired speed from 10 to 40 words per minute. (For recording at higher speeds, use Model SR-900 Recorder, listed on page 65.) Supplied complete with variable speed tape puller, same as furnished with G-813-A keyer above, right.

#### RECORDED SIGNALS CAN BE REPRODUCED

Tape recordings made on the Model G-913-A can be audibly reproduced at slower, faster, or recorded speeds by running the recorded tape through any electric cye graphic keying unit, such as Army TG-10 or the McElroy G-813-A (listed at the right). This gives the student an opportunity to hear his own sending or to listen to off-the-air recordings and special tape recordings made by the instructor or other students. The recorded tape can also be used as a visual indication of student progress. This method, although recently adopted by code training schools, has already been pronounced as extremely valuable in improving technique.

#### HOUSED IN PORTABLE CARRYING CASE

Recorder, tape puller and built-in power supply complete with tubes in a heavy wood carrying case, with lock-on top, and metal carrying handle. Binding posts for key or bug connections and for output connections from communications receiver are conveniently located on the chassis front. Blank tapes (not included) are listed in the lower right-hand corner of this page. Uses Higgins India or equivalent opaque ink. For 110 volt AC or DC operation.

Wt., 30 lbs. **\$150.00**  
76-030. NET

#### G-813-A ELECTRONIC KEYER—TRAINING SCHOOL UNIT

Consists of a graphic (photo-cell type) keying unit, a variable speed tape puller (adjustable from 10 to 40 words per minute), and a sturdy hand rewind (see below, left). This combination has been especially designed by T. R. McElroy, world's champion telegrapher, for the purpose of teaching wireless telegraphy with a minimum of time, effort, and cost. The keying unit excels anything previously produced. Produces code signals from tape made on G-913-A (left) or from McElroy pre-

The tone-oscillator terminates into two output loads, one a high impedance of 2500 ohms and the other a low impedance of 15 ohms. A headphone jack is provided for monitoring. The output power is sufficient for simultaneous operation of from one to three hundred pairs of headphones. The tape holder will accommodate standard 16 mm., 400-foot motion picture reels. The tape is drawn between the exciter lamp and the photo cell and on to a takeup reel by the tape puller. A 400-ft. roll

pared practice tapes, listed at the bottom of the page. The rewind mechanism, so often the weak point of this type of equipment, has been durably constructed of heavy castings with steel-cut gears approximately 1/2" thick. The 1/2" steel shafts ride on oilite bearings. The built-in tone source is electron-keyed, giving a signal that is absolutely free from annoying chirps or key clicks. Does not generate tone constantly at the beginning of operation or during adjustment of the tape.

#### AN IDEAL KEYER FOR GROUP INSTRUCTION

McElroy G15AA "practice tape, if run at the recorded speed of 20 w.p.m., will run for approximately one hour. Will handle speeds from 10 to 40 w.p.m. Adjustment knobs for photo-cell voltage and tape alignment are provided. Shipped complete with four 117N7GT or 117P7GT tubes, T7 exciter lamp, 930 photo-cell and variable speed tape puller and 1 reel. For 110 volts AC or DC.

Wt. 50 lbs. **\$150.00**  
76-010. NET

#### MODEL TP-890-742 PROFESSIONAL TAPE PULLER



The Model TP-890-742 McElroy Tape Puller is a truly professional unit. Its many operating features adapt it equally well to commercial and training school use. The husky AC-DC motor is housed in a heavy die-cast case. The commutator and brushes are over-sized; the heavy die-cast flywheel is dynamically balanced; and the rotor is mounted on oilite bearings. Especially designed for use with SR-900 Signal Recorder (page 65). Takeup reel can be manually disengaged for rewinding or for permitting continuous operation of motor while tape is stopped. Because operating speed is a function of both mechanical and electrical control, extreme accuracy is maintained. For 110 volts, AC-DC.

Wt., 35 lbs. **\$90.00**  
76-031. NET

SEE BELOW FOR TAPE LISTING

#### McELROY CODE APPARATUS ACCESSORIES

##### HAND REWIND Fig. A

Extremely durable. Has heavy die-cast housing; steel-cut gears approximately 1/4" thick. 1/2" steel shafts mounted on oilite bearings. With 16 mm., 400-foot reel. **\$9.00**  
76-026. NET  
76-130. Extra 400 ft. 16 mm. reel. **35c**

##### TELEGRAPH BLUE INK Fig. B.

Ink-concentrate capsule. Makes 1 quart. For night reading. **\$3.00**  
76-027. NET

##### TAPE STAND Fig. C.

Model TS-915. Has heavy die-cast base and adjustable reel holder. Holds 400 foot roll of tape. Designed for use with Signal Recorders. Shing. wt., 10 lbs. **\$30.00**  
76-022. NET

##### PRACTICE TAPES

McElroy G15AA Code Practice Tapes are reproduced from U.S. Army master rolls and are ideal for training schools of every type. Code used is International Morse, and recording is heavy-linked broad line style for use with the G-913-A Graphic Keying Unit, above, or any photo-cell keying unit operating from 10 to 40 w.p.m. Tape, plate set consists of 15 400-ft. reels which are conveniently housed in a strong slotted-wood carrying case with lock-on cover. Each reel slot numbered. Wt., 20 lbs. **\$45.00**  
76-011. NET

##### BLANK TAPES

Radio-Telegraph Recorder-Slips for any commercial recorder. Each roll, 1/2" wide, 400 feet long, will hold close to ten thousand words. Packed 25 rolls to a bundle. Wt., 15 lbs. **\$7.50**  
76-023. Per Bundle.





# RADIO CODE APPARATUS WORLD-FAMOUS TELEGRAPHER-DESIGNER

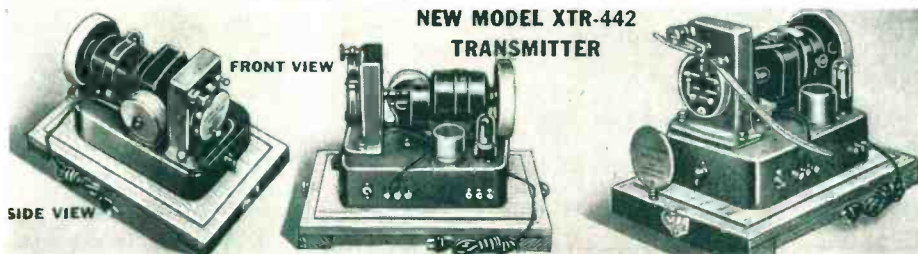
# McELROY

also Public and Private Schools and Commercial Radio and Telegraph Companies all over the world are today using McElroy equipment in their everyday activities. In addition to their many operational features McElroy transmitting and receiving equipment is especially designed for fast, easy maintenance and repair. Precision type unit construction permits the instant replacement of indi-

vidual parts or complete unit-assembly components. McElroy Code Training Equipment, like all other apparatus using critical materials in their construction, is available only to branches and offices of our Fighting Forces, Government Agencies, Industry, and Training Schools, authorized under Priority Regulations to purchase these units. Our technical staff will gladly answer any questions.

**STANDARD FOR  
★ RADIO CODE  
TRAINING**

## NEW MODEL XTR-442 TRANSMITTER



## THE NEWEST PERFORATED-SLIP CODE INSTRUMENT

The McElroy XTR-442 Transmitter for Perforated Slip consists of a variable speed motor-driven automatic keying head and a capacity-polarized double-acting relay with built-in power supply. Here is the most spectacular advance in design, mechanically and electrically, in any instrument ever designed for keying any wireless telegraph communications circuit or audio oscillator set up for teaching school use. Operates from 110 V. paper tape in which the signals have been punched by a Kleinschmidt or Teletype perforator. We can supply duplicate tapes, cut from your masters, at \$4.50 per 400 foot roll.

### IDEAL FOR CODE TRAINING AND COMMERCE

The heavy-duty AC-DC motor drive has been properly stabilized by the addition of a dynamically balanced flywheel. Thus constant speed operation is assured at any setting of the continuously variable speed control. The capacity-polarized S.P.D.T. relay is designed to function accurately at any speed from 4 to over 300 words per minute. This is a conservative estimate. Three output terminals are provided from the relay circuit. The center terminal connects to the moving arm, and the outer terminals to the contact members. This makes possible the keying of oscillators, tape recorders, etc., which are either normally open or normally closed types, thus providing maximum flexibility.

### MASTER OSCILLATOR MODEL MS-700



The Model MS-700 Master Oscillator provides an audio tone source for operation either as a practice oscillator for an individual student or as a master oscillator for group instruction of as many as 300 students at one time. The clear audio signal produced is immediately adjusted as to pitch and amplitude by continuously variable controls, the frequency range extending from approximately 600 to 1,500 cycles. Insulated terminals provided for output and keying circuit connections. Works into 15 ohm load, or higher. For low voltage keying, means are provided for connecting to the 4" Permalene speaker used for monitoring purposes can be silenced when desired. The Master Oscillator, because of its extremely low price and many outstanding operational features, meets functional needs and budget schedules for training and commercial use. All metal parts and terminals are completely isolated from the 110 V. line. Cabinet is molded bakelite. Has line cord and plug and on-off switch. Finished completely with tube. For 110 V. AC or DC operation. Wt., 7 lbs. **\$11.85**

76-021, NET.....

### CODE TRAINING AIDS SL-990 SIGNAL LEVELLER

76-033. An automatic audio volume control, also background noise eliminator. Connects to output of communications receiver for use when making off-the-air code recordings. Wt., 25 lbs. **\$90.00**

### SR-900 SIGNAL RECORDER

76-034. Designed for inked recording of code signals from key, bug or off-the-air at speeds up to 300 words per minute. Use with TP-890-742 Tape Puller. Comes with tube. Wt., 30 lbs. **\$195.00**

Send for new McElroy Code Equipment catalog. **FREE.**

### VARIABLE SPEED ACCURATELY CONTROLLED

Every worthwhile feature of reliability and ruggedness has been incorporated in the XTR-442 which make it the ideal transmitter for use in code training schools and by commercial agencies as well as the vital communications circuits of our government services. Each operating unit has been made easily removable for easy servicing. Shipped complete with line cord and plug. Conveniently mounted on heavy wood base with wooden cover and carrying handle. For 110 volt AC-DC operation. Wt., 30 lbs. **\$375.00**

76-032, NET.....

Duplicate tapes from your masters, 400 ft. roll. NET..... **\$4.50**

### THE FAMOUS 200 HAND "STREAM KEY"

A professional type streamlined handkey for code training or commercial use. Main lever is perfectly balanced and fully adjustable for tension, contact spacing, and side-play. Silver contacts are 1/4" in dia., for long wear and good contact. Circuit closing switch is provided, permitting this key to be used in series circuit groups. Heavy metal base, black wrinkle finish. Molded plastic knob of standard design for effortless keying. A truly deluxe key with a "feel" that makes good code transmission easy for any operator. 1 1/2 lbs. **\$2.25**

76-020, Model 300. Like Model 200, but also finished in polished blue-tinge chrome. Wt., 1 1/2 lbs. NET..... **\$3.45**

### MODEL CP-500 "SPEED KEY"

A truly professional bug or speed-key designed to conform with U.S. Navy specifications. One of the finest semi-automatic keys made for smooth, effortless keying. Heavy Parkized cast base, grey crackle finish. Entire superstructure is finished to match base. All outer parts are bright finish. Molded plastic knob and finger paddles. Circuit closing switch. Silver contact points are 1/4" in dia. Right and left arm tension springs are fully adjustable. Size, 3 1/4" x 6 1/4" x 3 1/4". Moderately priced as the result of its popularity and consequent high production, the Model CP-500 is sure to please even the most critical operator. Shpg. wt., 6 lbs. **\$11.85**

76-018, NET.....





# CODE KEYS · OSCILLATORS · SENDERS



## POPULAR SPEEDEX TRANSMITTING KEYS

### MODEL 310—FIG. A.

Skeleton frame type; black wrinkle finish base; other parts nickel-plated;  $\frac{1}{4}$ " silver contacts. Dual adjustment for tension and lever action. Shipping weight, 2 lbs.  
**76-055. NET. \$1.47**  
**76-056. 310 with circuit cover. NET. \$1.76**

### MODEL 301—FIG. B.

Sturdy standard key with molded bakelite base. Metal parts nickel-plated; digital connection to arm;  $\frac{1}{4}$ " silver contacts. Wt., 1 lb.  
**76-057. NET. \$1.26**

### MODEL 320—FIG. D.

Professional type key.  $\frac{1}{4}$ -inch coin silver contacts. Black base. All other parts attractively chrome plated. Shpg. wt., 2 lbs.  
**76-058. NET. \$2.06**  
**BUZZER. FIG. C. Constant frequency. Operates on 3 volts DC. Bakelite shell. Wt., 8 oz.**  
**76-060. NET. 73.**

### SIGNAL R-30 KEY

Here's a real value in an inexpensive, highgrade hand key. Smooth acting, well insulated. Has sturdy cast metal base in black finish. Nickel-plated metal parts. Silver contacts. Shpg. wt., 1 lb.  
**76-090. NET. \$1.03**

### SIGNAL R-48 KEY

A  $\frac{1}{4}$  kw key at an amazingly low price. Durable, well made, has open type frame, smoothly polished key lever and lacquered parts. All contact points are platinum.  
**76-091. NET. \$1.65**

## BUD CODE PRACTICE OSCILLATORS

### A MODEL CPO-120

Has built-in dynamic speaker. Switch for high or low pitch signal. Key jack on front. Jack at rear for remote keying or relay. Accommodates external speaker.  $6\frac{1}{2} \times 4\frac{1}{2} \times 3\frac{1}{2}$ " Gray crackle enamel finish. With tube. For 110 volts AC or DC. Shpg. wt., 6 lbs.  
**76-400. NET. \$8.57**

### B MODEL CPO-124

Handles up to 20 sets of phones. Also has built-in speaker which is automatically muted when phones are used. Has variable volume and pitch controls. Any number of keys may be connected in parallel. For 110 volts AC or DC. Complete with tube. Size,  $4\frac{1}{2} \times 7\frac{1}{4} \times 3\frac{1}{2}$ ". Shpg. wt., 8 lbs.  
**73-402. NET. \$8.82**

### C MODEL CPO-122

Handles up to 20 sets of phones or five small magnetic speakers. Has variable pitch and volume controls. Ideal for code training tables with parallel keys and headphones.  $4\frac{1}{2} \times 3\frac{1}{2} \times 3\frac{1}{2}$ ". With tube. For 110 volts AC or DC. Shpg. wt., 3 lbs.  
**73-401. NET. \$7.59**

### OUTLET BOX

For terminating key and earphone connections in group practice. Used at each operator's position and wired to master oscillator. Bakelite case,  $4\frac{1}{2} \times 2\frac{1}{4} \times 1\frac{1}{2}$ ". Shpg. wt., 1 lb.  
**73-408. NET. \$1.06**

## CODE COURSE RECORDS

Now you can learn code quickly and easily. The Language course consists of five double-faced 10" records with instruction book and album. You can sit at home beside your record player and follow the code as it sounds when "keyed" by expert instructors. You'll soon be able to "copy" code with ease. Can be used with an electrical or mechanical phonograph. Shpg. wt., 6 lbs.  
**89-950. NET. \$9.00**

### HI-SPEED MODEL 500

Fig. A. Heavy, black wrinkle finished steel base with rubber feet. Perfectly aligned free-acting bearings.  $\frac{1}{4}$ " coin silver contacts. Adjustable double finger-paddles. With shorting switch. Wt.,  $4\frac{1}{2}$  lbs.  
**76-052. NET. \$7.94**  
**76-050. Model 501. Chrome plated.  $\frac{1}{4}$ " contacts. Wt., 6 lbs. NET. \$10.29**

### AMATEUR MODEL 513

Fig. B. A durable, heavy-duty Speed Key. Base and casting finished in black wrinkle enamel; all other parts chrome plated. Other features same as No. 500 Hi-Speed key above. Has  $\frac{1}{4}$ " silver contacts. Less cord and plug; does not have shorting switch. An excellent speed key for Professional or Amateur use. Wt., 5 lbs.  
**76-051. NET. \$5.44**

### MODEL 300—FIG. C.

An exceptionally fine value in a well-made beginner's key. Walnut-bakelite base. Metal parts nickel-plated;  $\frac{1}{4}$ " silver contacts. Has spring bearings, accurate tension and space adjustments. Shpg. wt., 1 lb.  
**76-053. NET. 88.**

### CODE PRACTICE SET

Fig. D. An inexpensive set with practice key and adjustable buzzer; molded walnut plastic base. Produces high-pitched code signals. Excellent for class or individual code instruction. Shpg. wt., 2 lbs.  
**76-059. NET. \$1.62**

## G-L CODE EQUIPMENT

### MODEL "S" SENDER

A compact automatic code practice instrument. Induction type motor with variable speed control permits code sending range of from 4 to 60 words per minute. Easy to operate, only three controls, motor on-off switch, contact switch, and speed control. Blinding post terminals for connecting to oscillator or buzzer. Supplied with ten rolls of double perforated tape comprising twenty practice lessons. Size,  $5\frac{1}{2} \times 4\frac{1}{2} \times 6\frac{1}{2}$ ". For 115 volts, 50-60 cycles AC. Postpaid in U.S.A.  
**76-100. NET. \$17.50**

### MODEL "J" SENDER

Model "J" is a simple, easy-to-use device for code practice or instruction work. Can be used with any practice oscillator. Induction motor permits speeds of 10 to 60 words per minute. Includes five rolls of prepared practice tape and five rolls of blank tape. Student can prepare own tape by means of punching keys which are part of unit. For 115 volts, 50-60 cycles. Postpaid in U.S.A.  
**76-101. NET. \$12.50**  
**76-102. 1000 ft. extra blank tape. NET. \$1.00**

## ICA SIGNA-TONE

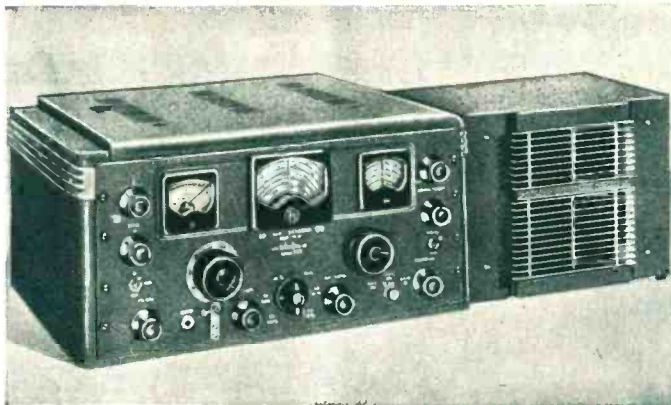
### FOR PHONES

Similar to deluxe model but designed primarily for classroom instruction. Has plug-in facility for earphones or speaker. Features adjustable 3-tone audio output, variable volume control, and extra terminals for keys and phones. Includes send-receive practice instructions for classroom use. With tube. Size:  $4\frac{1}{2}$ " wide,  $4\frac{1}{2}$ " high,  $4\frac{1}{2}$ " deep. For 110 volts, AC or DC. Shpg. wt., 3 lbs.  
**73-431. NET. \$8.82**  
**73-432. Station Terminal Box. Consists of key and phone jacks mounted in compact case. Ideal for code instruction classes. Wt., 1 lb. NET. \$1.47**

### DELUXE WITH SPEAKER

An audio oscillator with 3 output frequencies and variable volume control. Produces signal like that of commercial CW station. For use as (1) Code Practice Set, with facilities for keys and phones for multiple code instruction; (2) Keying Monitor, will follow "bugs" at all speeds; (3) Modulation Signal, for adjusting the modulation level of a transmitter; (4) Signal Tracer—locates defects when fed into audio stage of amplifier. With tube and built-in speaker.  $7\frac{1}{2} \times 4\frac{1}{2} \times 4\frac{1}{2}$ ". For 110 volts AC or DC. Wt., 5 lbs.  
**73-430. NET. \$11.76**





# FAMOUS hallicrafters COMMUNICATIONS RECEIVERS

## MODEL SX-28 "SUPER-SKYRIDER"

THE SX-28 HAS EVERY  
WORTHWHILE IMPROVEMENT  
FOR FINEST PERFORMANCE

- 15 Tube Circuit
- Two Tuned RF Stages
- Tunes 550 KC to 42 MC
- Frequency-Meter Tuning
- Adjustable Noise Limiter
- Six-Step Selectivity
- Crystal Phasing
- 2MV Sensitivity
- Inertia Tuning
- Temp. Compensated
- Full Bandsread

The Super Skyrider Model SX-28 receiver was designed as the result of exhaustive analysis of more than 600 reports and recommendations, including the specifications of government engineers. Cabinet is made of 16-gauge steel, finished in machine tool gray-wrinkle; chassis of 14-gauge steel with flanged edges and flame-welded corners. Brushed cadmium plating protects the chassis and metal components, with special box-rider type shields covering the gang condenser and coil assemblies. Panel is 1/4-inch steel with morocco finish and etched control markings and will fit standard relay rack, if desired. The SX-28 uses 15 tubes: 18S3 first RF stage, 6SK7 second RF stage, 6SA7 mixer, 6SA7 HF oscillator, 6L7 1st IF-noise limiter, 6SK7 2nd IF, 6B8 2nd detector, 6B8 AVC amplifier, 18S3 noise amplifier, 6H6 noise rectifier, 6J5 BFO, 6SC7 audio driver, 2-6V6CT push-pull audio amplifier, and 5Z3 rectifier. Audio output impedance is 5000 ohms to match the Hallicrafters R-12 or PM-23 speakers, and 500 ohms for long lines. **Frequency Ranges:** Tunes from 550 KC to 42 MC in six bands: No. 1—550 to 1620 KC, No. 2—1.5 to 3.05 MC, No. 3—2 to 5.85 MC, No. 4—5.75 to 11.5 MC, No. 5—10.5 to 21 MC, No. 6—20.7 to 42 MC. **Controls:** Micrometer scale main tuning and inertia controlled calibrated bandsread for 80/40/20/10 meter. Amateur bands. AF gain, RF gain, Tone Control, Bass boost switch, Antenna trimmer, AVC-BFO switch, Band-switch, Crystal phasing, Six-posi-

tion selectivity, Adjustable Noise Limiter, BFO pitch, and Standby switch. **Dials:** Indirectly illuminated. Direct-reading vernier type main dial with dial lock. **Wide-angle "S" meter:** Calibrated in "S" units, and db above "S9." **Audio:** Beam-power push-pull audio stage with bass switch and bandpass filter. Input for phono pickup. Audio output, 8 watts undistorted.

**Other Features:** Extremely high usable sensitivity at all frequencies, bands 1-5, 2 MV. or less; band 6, 4 MV. Improved signal to image and noise ratio; temperature compensation; semi-floating condenser gang. **Speaker:** Separate Hallicrafters Model PM-23 10" PM speaker with built-in transformer to match SX-28 available at extra cost. (See below). **Power:** Draws 138 watts from 110 volts, 60 cycle AC line. Has emergency-power input plug for use with batteries or vibrator supply. **Cabinet Size:** 20 1/2" long, 10" high, 14 1/4" deep. **Weight:** 75 lbs. net; ship. wt., 87 lbs.

**97-520.** With tubes and crystal. **\$17950**  
Less speaker.

**PM-23 10" PM Speaker** in metal cabinet. Finished in gray to match receivers; has metal trim. With built-in coupling transformer to match 5,000 ohm output of SX-24, SX-25, SX-28, and SX-32. Ship. wt. 17 lbs.

**97-572. NET..... \$15.00**



## THE "SUPER DEFIANT" SX-25

It's a "world-beater" for value! Designed and built with typical Hallicrafters precision, the SX-25 uses 12-tubes, including rectifier, and tunes from 550 KC to 42 MC, with Frequency-Meter tuning. Among its many desirable features are: Illuminated "S" meter, calibrated in "S" units and db.; Six-step selectivity with crystal filter; Automatic Noise Limiter; Drift-compensated oscillator; Standby switch with break-in relay terminals; Variable pitch BFO; Antenna input for Marconi or doublet; Speaker terminals for either 5000 ohms or 500 ohms; and Bass-treble tone control. Panel controls are: Main tuning, Bandsread tuning, Crystal phasing, Standby switch, and BFO control. Two TRF stages provide ample selectivity and sensitivity. The SX-25 is supplied with tubes and crystal. Separate 10" PM speaker in metal cabinet matches the receiver. Finished in attractive gray wrinkle. 19 1/4" long, 9 1/4" high, 11 1/4" deep. Has provisions for operation from emergency battery bank or from electronic converter. For operation on 110 volts, 50-60 cycles AC. **\$9450**

**97-513.** Less speaker. **NET..... \$15.00**  
**97-572. MODEL PM-23 10" SPEAKER.** As described with "Super-Skyrider" above. Ship. wt. 17 lbs. **NET..... \$15.00**

## THE "SKYRIDER MARINE" S22-R

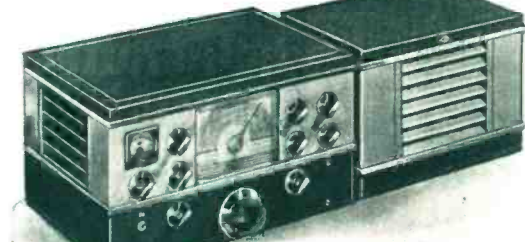
Developed specially for Marine, Aircraft and all other branches of service where reliability is the prime consideration. Designed and built to provide absolutely dependable performance under toughest weather and climatic conditions. All metal parts are covered with special plating or finish process for protection against weather and climate. Variable mica condensers are specially treated to maintain constant adjustment under continuous exposure to salt sea atmosphere. Total tuning range is 110 KC to 18 MC (2150 meters to 16.2 meters) available in four overlapping frequency bands. Powerful improved 8-tube circuit uses 3-6SK7, 1-6J5, 1-6K8, 1-6SQ7, 1-25L6, and 1-25Z5 rectifier tubes. Sensitivity and selectivity are excellent. IF selectivity is only 18 KC wide at 10 times down. Greatly improved image rejection at the higher frequencies is achieved through the use of a 1600 KC IF amplifier system. Main tuning dial is directly calibrated over 338 degrees; coupled through slow-ratio mechanism to the separate mechanical-bandsread dial to provide easy and simplified tuning. Sturdy metal cabinet finished in black wrinkle. Controls are: Tuning, AVC-BFO, RF and AF gain, Tone, Breakswitch and Standby switch. Built-in speaker is automatically muted when headphones are plugged into phone jack. 18 1/4" long, 9 1/4" deep, 8 1/4" high. For 110 volts, AC-DC operation. For 6V. DC, use electronic converter. With tubes. **\$7450**  
Ship. wt. 31 lbs.

**97-501. MODEL S-22R. NET..... \$7450**

**Priorities:** Hallicrafters equipment is available only on priority. For best service please include your highest authorized rating.

FOR ADDITIONAL HALLICTRAFTERS LISTINGS SEE INSIDE BACK COVER

# COMMUNICATIONS RECEIVERS



## NATIONAL NC-200

The National NC-200 receiver with its many features represents one of the most outstanding developments of the famous National engineering staff. Twelve tubes are used: 6SK7 Tuned RF stage, 6X8 First Detector, 6J5 IF Oscillator, 6K7 1st IF, 6SK7 2nd IF, 6C8G Second Detector-Limiter, 6S17 AVC, 6S17 BFO, 6F6C Phase Inverter, 2-6V6 Push-pull Audio, and 3V6 as rectifier. A full-vision dial operated through a 30-1 gear drive is accurately calibrated on ten frequency ranges. Six of these ranges are for general coverage over the total tuning range from 490 to 30,000 KC; four additional ranges provide calibrated bandspread of the Amateur 80/40/30/10 meter bands. The sensitivity is particularly high, with an input signal of only 1 microvolt providing 1 watt of audio output. Newly developed RF coupling circuits provide full sensitivity up to the extreme high end of the tuning range at 30 MC. All RF and IF coils are wound on molded polystyrene coil forms, assuring freedom from circuit losses caused by humidity. All critical components, such as tuning and trimming condensers, are insulated with Isolantite, to insure high stability at all frequencies. Temperature compensation in critical circuits reduces frequency drift to a negligible value. 6 step selectivity provided by crystal filter.

## NATIONAL'S FINEST COMMUNICATION RECEIVER!

Other important features are: Wide range adjustable series-valve-noise limiter, calibrated signal level meter, provision for battery operation in emergencies, standby switch, separate 10" PM speaker in matching metal cabinet, attractive modern cabinet finished in two-tone gray and chrome, self-balancing phase inversion circuit, 8 watts undistorted audio output, image ratio of better than 30 db. at 10 meters, separate high frequency oscillator and first detector tubes, absolute minimum of inherent circuit noise, and an attenuator type tone control. Controls include: Combination tuning and band-change knob, RF and AF gain controls, BFO on-off and variable pitch, 3 position 81-plate-standby switch, Crystal selectivity and crystal phasing. Supplied complete with tubes, crystal, speaker and instructions. For 115 volts, 50-60 cycles.

Shpg. wt., 95 lbs.

97-650. NET.

**\$17450**



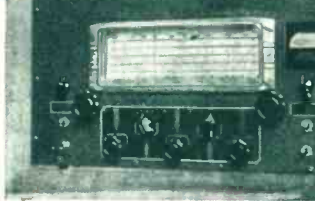
## HAMMARLUND MODEL HQ-120X

The Hammarlund HQ-120X receiver was designed to meet the most critical demands of the professional operator. This ultra-modern 12 tube (including rectifier) receiver covers a continuous range from 540 KC to 11 MC in 6 bands. Special tuning condenser construction permits 310 degrees of bandspread for each Amateur band; direct calibration of tuning dial permits accurate logging. A new type of crystal filter giving six positions of selectivity for Phone or CW makes operation a pleasure even under unusually crowded conditions of reception. Built-in noise limiter circuit overcomes objectionable noise disturbances; operates with or without AVC on and is controlled by panel on-off control. "S" meter indicates in "S" units and is calibrated S1 to S9 and up to 40 DB above "S9". Tuned preselector stage with three high-gain IF stages produces highest possible signal-to-noise ratio with maximum attenuation of image frequencies. Panel control of antenna compensator permits adjustment for peak performance on each band. Send-Receive switch with external break-in relay terminals. Automatic voltage regulator compensates for line variations. Attractive gray crackle finished cabinet and etched panel. Supplied with high quality 10" speaker, and tubes. Metal speaker cabinet finished in matching gray crackle available at extra cost as listed below. For 110 volts, 50-60 cycles AC. Shipping weight, 47 lbs.

97-680.

NET. **\$16800**  
97-681, SC-10 Gray cabinet for HQ-120X speaker. Shpg. wt., 8 lbs. NET. **\$3.90**

**PRIORITIES:** All communications type receivers displayed on this page are available only on orders covered by priority rating. For fastest possible service please include the highest priority rating available when placing your order.



## 14 TUBE "TRAFFIC MASTER"

Here's a clean cut 14-tube receiver that's engineered around every worthwhile feature for finest performance and dependability. Exceptional sensitivity is assured by a "hot" RF stage on all bands. A voltage regulated power supply insures main oscillator and B.F.O. stability. Covers 5 bands from 540 KC to 31.6 MC with full electrical bandspread tuning, crystal filter, built-in noise silencer, high-gain RF stage on every band, air-trimmed RF and IF coils, phase inverter driver, dual control full-vision flywheel dial, panel-controlled BF oscillator unit. Illuminated directly-calibrated "R" meter, automatic volume control, double antenna connections, headphone jack and standby switch, 8 1/2 watts undistorted power output. Complete with tubes, less only the speaker. Speaker used should be a 12-inch PM dynamic with output transformer to match push-pull 6V6 tubes. Speaker connection requires a 5-prong plug. For 110 volt, 60 cycle AC operation. Built into a sturdy, attractive black crackle-finish metal cabinet, measuring 19"x10 1/2"x14". Shpg. wt., 100 lbs. **\$8-135**. Complete. **\$141.61** less speaker. NET.



## SIGNAL CALIBRATOR

The Signal Calibrator is a precision frequency standard that belongs in every station, electronic lab., industrial plant, and radio factory where a frequency check is required. Permits a constant check on transmitter frequency, calibration of receivers, etc. Furnishes modulated or unmodulated signals every 100 KC, 50 KC, and 10 KC from 100 KC to better than 10 MC. Positively identifies band edges, including "phone bands" ending on 50 KC. Quartz crystal is silver-plated to minimize frequency drift; operates at 100 KC, adjustable to exact zero beat. The crystal is easily adjusted by front panel control to exact frequency against Bureau of Standards Station WWV; multi-vibrators operate at 50 KC and 10 KC. Uses 2-182, 2-6N7G, 1-6X8, 1-6SK7 and 1-6X5 tubes. Push-buttons on panel select Standby, 100 KC, 50 KC, or 10 KC, as desired. Has attenuator for controlling output level and an adjustable modulation control. Housed in a well-ventilated black crackle finish steel cabinet, 8"x8"x12". For 110 volt, 50-60 cycle AC operation. Shipping weight, 20 lbs. **\$8-136**. Complete with tubes. **\$45.08** NET.



## SIGNAL SHIFTER

A highly efficient electron-coupled frequency control for driving Xmitters. Instant shift in any given band. Low-impedance link output circuit permits coupling to any stage in the transmitter, has RF power output of approx. 7 1/2 watts on 1.7, 3.5, 7, and 14 MC. Three-way control switch on panel for "Standby", "Manual On", or "Automatic On". "Manual On" position permits checking frequency at will to move to any desired spot in the band. Keylock filter provides flickless keying of oscillator stage. With 80 meter coils and tubes (1-6F6, 1-6L6, 1-3X4G, 1-VR150, 1-VR105). For 115 volts, 60 cycles AC. Shpg. wt., 35 lbs. **\$8-120**. Black finish. NET. **\$53.90**  
**73-550**. Choice of 5 sets of coils to cover 10, 20, 40, 80, or 160 meter bands. Per set. **\$2.94**  
**73-551**. Choice of 14 sets of coils to cover 2040 to 16,500 KC. Specially coverage desired. Per set. **\$5.88**  
**73-552**. Choice of 5 sets of coils for phone bands from 1900 to 14,250 KC. Specially coverage desired. Per set. **\$4.65**





## Knight Sound Equipment Serves On These Fronts



### WAR INDUSTRY

1. Factory, office and store paging.
2. Air raid warnings.
3. Pep talks and mass meetings.
4. Ease job fatigue with music to improve morale and increase plant efficiency.
5. For personnel training.
6. For "Safety First" instruction.



### ARMED FORCES

1. Office and barracks paging.
2. Field maneuvers.
3. Mass instruction.
4. Bugle calls.
5. Service center entertainment.
6. Calls and alarms.
7. Code trainings.



### SCHOOLS

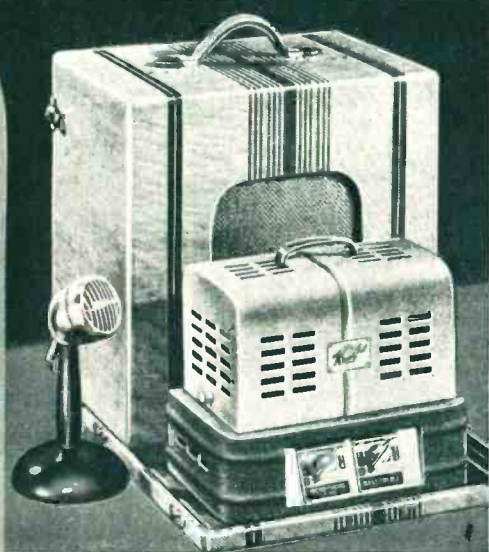
1. Mass instruction.
2. Education by radio.
3. Paging.
4. Lectures and special announcements.
5. Assembly halls.
6. Athletic stadiums.
7. Entertainment.



### THE HOME FRONT

1. Air raid alarms.
2. Civilian defense meetings.
3. First aid and defense classes.
4. Instructions for civilian campaigns.
5. Entertainment for civilian morale.

Knight amplifiers  
are available only  
on priority orders



### Knight 7 WATT UTILITY DELUXE SOUND SYSTEM

Here's your "Best Buy" in a versatile Portable System! You get more for your money in quality, features, and service. Prove it to yourself—try this top-notch system under your own operating conditions. You are fully protected by our guarantee of complete satisfaction or your money back.

**Easy to Use.** Just set it up and use it in a jiffy! You don't have to be an expert to get perfect results.

**Universal Input.** Takes any high-impedance mike or phono. Has microphone-phono fader type volume control.

**Inverse Feedback.** Permits you to work system at higher output with better quality and less distortion.

**Tone Control.** You can emphasize bass or treble to suit yourself. Helps reduce feedback.

**Illuminated Panel.** Used only in quality equipment. Fully lighted plant panel gives you easy visibility anywhere.

**All These "Plus" Features.** Has socket provision for extra PM or magnetic speaker or headphones. You can't make a wrong connection because both mike and speaker receptacles are polarized.

**Complete Portable System.** Complete in compact portable case, 13 1/4" x 13 1/4" x 10 1/2". Carrying weight, 31 lbs. Includes: Knight 7 watt amplifier, with tubes; Shure Crystal mike on desk stand, with 12-foot cable and plug; 8-inch Dynamic speaker with 20-foot cable and plug. For 110-120 volts, 60 cycles AC. Shpg. wt., 36 lbs.

93-013. NET PRICE.....**\$30.35**

93-020. Extra 8" Speaker, transformer, 20' cord and plug in portable case. Shpg. wt., 10 lbs. NET.....**\$9.35**

### AMPLIFIER SPECIFICATIONS

**Output:** Full 7 watts usable power (12 watts peak); hum is inaudible (67 db. below rated output); **Output Impedance:** 4000-4500 ohms direct from plate of tube; supplies field excitation to one 12.35 ohm speaker; **Input Channels:** Two on fader (one for mike, one for phono); **Tone Control:** for bass and treble; **Gain:** on microphone, 100 db., on phono, 70 db.; **Frequency Response:** 70-7000 CPS; Tubes: 1—6SC7, 1—6L6G, 1—5Y3G; **Line Drain:** 70 watts; **Fused:** for operation from 110-120 volts, 60 cycles AC. Size: 10" x 8 1/4" x 6 1/4". E. R. P. I. Licensed.

### 7 WATT AMPLIFIER ONLY

The Knight 7 Watt "Little Giant" amplifier is also available separately, with all features as described above. Makes an ideal nucleus for assembling your own sound system, or a fine replacement for obsolete amplifiers. Complete with protective steel cover and handle. Has wiring diagram on base. Two-tone grey-crackle finish. Size: 10" x 8 1/4" x 6 1/4". Less tubes. Shpg. wt. 12 lbs.

93-011. NET.....**\$13.65**

93-010. Amplifier with tubes. Wt., 14 lbs. NET.....**\$15.90**



# Knight 14 WATT DeLuxe P. A. SOUND SYSTEMS



## AMPLIFIER SPECIFICATIONS

**Output:** full 14 watts usable power (18 watts peak); hum is inaudible (55 db. below rated output); **Output Impedance:** 4, 6, 8, 500 ohms on selector; designed for I'M or for self-excited Dynamic Speakers; **Input Channels:** two, one for mike, one for phono, on individual controls; **Tone Control:** for bass and treble; **Gain:** on microphone, 125 db.; on phono, 75 db.; **Frequency Response:** 60-8000 CPS; **Tubes:** 1—6SJ7, 1—6X4, 2—6V6G (Beam Power), 1—5Y3G; **Line Drain:** 75 watts; **Fused:** fully fused for operation from 110-120 volts, 60 cycles AC; **Amplifier Size:** 16 1/4" x 10 1/4" x 9 1/4". E. R. P. I. Licensed.

## 14 WATT AMPLIFIER ONLY

Do you need a quality amplifier to improve results from your present equipment? Are you looking for a nucleus to build up your own sound system? Here's the amplifier you want for tone quality, features, and dependability. In smart-looking streamlined two-tone grey steel case, with sturdy carrying handles. Top-cover and bottom-plate are removable for quick access to tubes and components. Has diagram on base-plate. Shpg. wt., 25 lbs. Less tubes, **\$25.20**

**NET**.....  
**93-030.** Amplifier as above, but with tubes. Wt., 27 lbs. **NET**.....**\$28.25**

This Deluxe amplifier is used in the complete sound systems described below.

## JUST CHECK THESE FEATURES:

- Inverse Feedback
- 2 Input Channels
- Bass-Treble Control
- Safused Speaker
- Speaker Selector
- Illuminated Panel
- Optional Phono Top
- Dual Output Sockets
- Fused For Safety
- Beam Power Output

## Knight 14 WATT PORTABLE SYSTEM

Here's the kind of Portable PA System you'd plan for yourself—with all the features and built-in performance you need—at the price you want to pay. The power rating is 14 watts and that means you get 14 watts without a sign of "cracking up." This popular power rating covers hundreds of important PA uses. The features are practical, designed to give best results, and you'll actually use them on the job. The system is cleverly designed for compactness and easy portability. It can be transported anywhere with a minimum of effort, which makes it ideal for use in army posts, in industry, in war training schools, etc.

**Easy to Set Up and Use.** The 14 Watt Portable is as easy to operate as any ordinary radio. You don't have to be an expert to get perfect results. It sets up in just a few minutes and there's nothing to add, it's complete.

**Inverse Feedback.** An "expensive-equipment" feature. Gives you greater output, better tone quality. You can work the system at higher output levels because distortion and hum are cut down to a minimum.

**2 Input Channels.** You can use any high-impedance Crystal, Dynamic, or Velocity mike, along with any phono pickup. Each input channel has separate control, and both channels may be mixed or blended as desired.

**Bass-Treble Control.** Gives you the tone emphasis you want, on both mike and phono. Helps cut down feedback. Easy to use.

**Universal Output.** Amplifier has built-in output transformer with a wide range of output impedances. You can use any variety and number of extra speakers. Line-tap permits use of speakers at greater distances.

**Speaker Selector.** You can match additional dynamic speakers of any make instantly by the special output selector.

**Safused Speaker.** An exclusive Knight feature. Speaker supplied with 52mm is specially fused for protection against overload.

**Illuminated panel.** Another exclusive Knight feature that's a real practical help. Panel slanted for easy, quick access to controls. It is fully flood-lighted so you can operate even in dark places.

**Optional Phono Top.** Originated by Knight. You can buy the system with matched built-in phono top; has rim-drive 78 RPM motor, 9" turntable, new type off-set head Low Pressure Crystal pickup, switch, armrest, needle-cup. Say goodbye to trailing wires, extra phono cases, etc.

**And These "Plus" Features.** Grip-the receptacle prevents accidental mike-plug removal; Dual Output Receptacles—six contact type. Fuse—protects the amplifier; AC input is tapped for line voltage adjustment to safeguard output level; has diagram on base plate.

**Complete System Includes:** 1—Knight 14 Watt Amplifier with tubes (less phono top); 1—Shure PA Crystal Microphone with 12-foot cable, on desk stand; 1—12" Safused Dynamic Speaker with 20-foot cable and plug; complete instructions. All components fit in compact split-carrying case, 22 1/4" x 10 1/4" x 15". Weight is only 53 lbs. For 110 volts, 60 cycles AC. Less phono top. Shpg. wt., 63 lbs., **\$49.10**

**93-034. NET PRICE**.....

## OPTIONAL EQUIPMENT FOR 14 WATT SYSTEMS

**93-045.** Phono Top for 14 Watt Systems. For 110 volts, 60 cycles AC. Shpg. wt., 11 lbs. **NET**.....**\$9.45**

**93-040.** Extra 12" Speaker with 20-foot cord and plug. Shpg. wt., 12 lbs. **NET**.....**\$8.50**

**93-041.** Extra 12" Speaker in standard wall baffle, 20-foot cord and plug. Shpg. wt., 15 lbs. **NET**.....**\$10.60**

**93-042.** Extra 12" Speaker in Economy All-Steel Projector with mounting bracket, 20-foot cord and plug. 20 lbs. **NET**.....**\$18.75**

**NOTE:** For high-quality Floor Stand (94-000, see page 77 of this catalog) in place of Desk Stand, add \$2.95.

## Knight 14 WATT ALL-PURPOSE SYSTEMS

Here is one of the best values available anywhere. A quality sound system for permanent types of installations. Incorporates the amplifier described above. Covers up to 6500 square feet. Has the latest, worthwhile improvements to bring you finest performance for your money. Ideal for office and factory paging. Used extensively by the armed forces in training programs. For clean, crisp reproduction it is unequalled. Provides dependable results under toughest conditions. Conservatively rated, ideal for moderate power requirements, easy to install and operate anywhere.

**93-035.** Includes: Knight 14 Watt amplifier with tubes (less phono top); Shure Crystal PA Mike with 12-foot cable, on desk stand; 12" Dynamic Speaker in Standard inclined, easy-to-mount Wall Baffle, 20-foot cable and plug. For 110 volts 60 cycle AC. Shpg. wt., 55 lbs. **NET**.....**\$43.90**

**93-036.** Same as above but without the wall baffle. For installations where baffle accessory equipment is already available or where another type of baffle is desired. For optional accessory equipment, such as phono top, extra speaker, etc., see the listings above. Shpg. wt., 50 lbs. **NET**.....**\$41.90**





# Knight 30 WATT DeLuxe P. A. SOUND SYSTEMS

## AMPLIFIER SPECIFICATIONS

**Output:** full 30 watts usable power (35 watts peak); hum is inaudible (55 db. below rated output); **Output Impedance:** 4, 6, 8, and 500 ohms on selector; designed for use with PM or self-excited Dynamic Speakers; **Input Channels:** three: two high-impedance mikes, one phono, on individual controls; **Tone Control:** for bass and treble; **Gain:** on microphone, 128 db., on phono, 50 db.; **Frequency Response:** 50-10,000 CPS. Tubes: 2-6SJ7, 2-6SC7, 2-6L6G, 1-5U4G; **Line Drain:** 185 watts; **Fused:** fully fused for operation from 110-120 volts, 60 cycles AC.; **Amplifier Size** 10 1/2" x 10 1/4" x 9 1/4". E.R.P.I. Licensed.

## 30 WATT AMPLIFIER ONLY

If you're looking for a quality high-power replacement amplifier for use with your present equipment, you can make no better choice. You get real, usable features, plenty of versatility, dependable power and the kind of tone quality you need. Housed in an all-steel case, in two-tone grey crackle. Has lighted, slant-protected control panel. Top cover is easily removable. For 110 volts, 60 cycles AC. (Optional equipment such as phono top, microphone, etc. may be selected from listings below.) Less phono top and tubes. Shpg. wt., 29 lbs.

93-131. **\$3495**  
NET.....  
93-130. Amplifier, as above, but with tubes. Wt., 31 lbs. NET.....\$39.95

## ALL THESE P.A. FEATURES:

- Illuminated Panel
- Safused Speakers
- 3 Input Channels
- Inverse Feedback
- High Impedance Input
- Optional Phono Top
- Universal Output
- Bass-Treble Control
- Silencer Mike Jacks
- Speaker Selector
- Beam Power Tubes
- Fuse-Protected
- Take-Down Stand
- E.R.P.I. Licensed

## Knight 30 WATT PORTABLE SYSTEM

"What type of Sound System do you need to fill 90% of your P.A. requirements?" Here's the Answer—the Knight 30 watt portable. You get far-reaching power and the right kind of tone quality. **3 Input Channels.** You can use any two high-impedance microphones and any high-impedance phono pick-up. And you have perfect control of each channel because there's a three-position mixer circuit with three individual controls that give you any degree of blending or mixing.

**Stabilized Inverse Feedback.** Gives you greater power with less hum and distortion—and that means remarkably improved tone quality.

**Bass-Treble Control.** Gives the right kind of tonal emphasis. Minimizes feedback, too; compensates for varying acoustical conditions. **Simple to Operate.** You don't have to be an expert to set up and operate this portable system. It's so easy to use, so fool-proof in operation, anyone can get satisfactory results. The 30 watt system is completely housed in a split-carrying case of compact and handsome design. Measures only 22 1/2" x 19 1/4" x 15". Carrying weight is only 55 lbs. complete.



**Safused Speakers.** Exclusive with Knight. Speakers are specially fused for protection against overload. Prevents electrical damage to speakers.

**Optional Phono Top.** A real advantage. You can buy the 30 watt system with built-in phono top—no extra cases, no trailing wires to fuss with. Includes rim-drive 78 RPM motor, turntable, Low Pressure Crystal pickup, switch, arm-rest, needle-cup and plug-in connections.

**Extra-Value Features.** You get the advantage of a special universal output selector, which permits instant matching to additional speakers or line. Silencer-jacks check hum when mike is removed. Six-contact speaker sockets make connection easy; have safety jumpers which automatically turn off amplifier when speaker plugs are removed. Amplifier is protected by fuse; AC input is tapped to assure full output even when line voltage varies. Wiring diagram appears inside amplifier base.

**Lighted, Slant-Protected Panel.** You asked for it and here it is—a fully illuminated instrument panel, slant-tilted and set-in for protection. **Fully Guaranteed.** All Knight amplifiers are of most modern design. They are E.R.P.I. licensed and carry the regular R.M.A. warranty. All parts used in construction are conservatively rated. The Knight 30-watt DeLuxe systems can be depended on for years of performance.

## COMPLETE 30 WATT PORTABLE SYSTEM

Complete system includes: 1—Knight 30 watt deluxe amplifier with tubes; 1—Shure crystal PA microphone with take-down mike stand (can be used as short or tall floor stand or as banquet stand) and 12-foot cable and plug; 2—12" Safused dynamic speakers with 20-foot cables and plugs; and operating instructions. Less phono top. Entirely self-contained in portable carrying case as illustrated. For 110 volts, 60 cycles. AC. Shpg. wt., 70 lbs.

93-134. NET PRICE COMPLETE.....

**\$7590**

## OPTIONAL ACCESSORIES

93-045. Phono Top. For 110 volts, 60 cycles. AC. Shpg. wt., 10 lbs. NET.....

93-255. Knight crystal mike and floor stand for second mike input. Wt., 17 lbs. NET.....\$14.95

## Knight 30 WATT ALL-PURPOSE SYSTEMS

To meet varying requirements for permanent installations, we offer a choice of the carefully selected systems described below.

**System with Wall Baffles.** Includes: Knight 30 watt amplifier with tubes, less phono top; 1—Shure crystal microphone on 94-000 floor stand with 12-foot cable and plug; 2—12-inch Safused dynamic speakers in wall baffles with 20-foot cables and plugs. With complete instructions. For 110 volts, 60 cycles. AC. Shpg. wt., 68 lbs.

93-135. NET PRICE.....  
System Less Baffles. Same as 93-135, but does not include the wall baffles. Shpg. wt., 58 lbs.

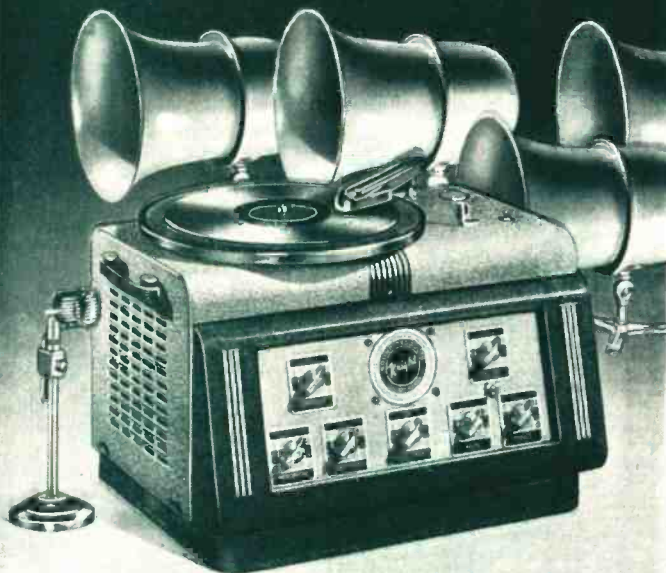
93-136. NET PRICE.....\$67.15

**System with All-Steel Projectors.** Same as 93-136, but with 2—all-steel projectors. Shpg. wt., 70 lbs.

93-137. NET PRICE.....\$85.15

(For optional accessories, see listing above.) For special industrial or military applications, write to our Sound Division.

# Knight 60 WATT INDUSTRIAL SOUND SYSTEM



## AMPLIFIER SPECIFICATIONS

**Output:** 60 watts usable power output (peak 90 watts); hum is inaudible (60 db below rated output). **Output Impedance:** 2, 4, 8, 16, 32 and 500 ohms on selector. **Input Channels:** six, four for high-impedance mikes, two on faders for phono; **Tone Controls:** attenuator-type, one for treble, one for bass; **Gain:** on mike, 130 db, on phono, 80 db; **Frequency Response:** 40-10,000 CPS; **Circuit:** Separate mike pre-amplifier stages, electronic mixing, power driver stage, separate bias, screen and plate voltages on power stage; **Tubes:** 4—6SJ7, 2—6SN7GT, 1—6X5, 1—6F6, 2—6L6, 1—83, 2—5U4G; **Line Drain:** 295 watts; **Fused:** fully fused for operation from 110-120 volts, 60 cycles AC; **Amplifier Size:** 19 1/2" x 14 1/4" x 11 1/4". E.R.P.I. Licensed.

## SPEED UP THE WAR EFFORT WITH THIS POWERFUL SOUND AID!

### PA IS VITAL TO INDUSTRY TODAY



Powerful  
Paging



Music for  
Morale



For Emergency  
Alarms



For Army  
Applications



**Biased Power**  
**4 Mike Inputs**  
**2 Phono Inputs**  
**Inverse Feedback**  
**Power Driver**  
**Speaker Selector**

**2 Tone Equalizers**  
**Press-to-talk**  
**Safety Fused**  
**Lighted Panel**  
**Master Control**  
**Universal Output**

The **Knight 60 Watt Industrial Amplifier** has been especially designed to meet the present-day needs of our Armed Forces and War Industries for powerful high-quality public address equipment. Provides adequate coverage for indoor areas up to 70,000 square feet where noise levels are low and up to approximately 20,000 sq. ft. where noise levels are high. Easily handles outdoor areas covering up to 40,000 square feet.

**4 Microphone Input Circuits.** Each automatically silenced when plug is withdrawn. Individual volume and mixing control on each.

**2 Phone Input Circuits.** A single fader controls volume level of both phono circuits.

**Single Master Control** regulates overall volume of all input circuits. Simplifies control.

**Separate Bass and Treble Controls** permit tonal response to meet varying requirements.

**3 Separate Rectifier Circuits,** one for plate voltages, one for screen voltages, and one for bias voltage on output stage mean better power supply regulation for smooth high-power output. No trace of "cracking up" at full output.

**Inverse Feedback** permits high output level without noticeable distortion. Jack provided for headphone or loudspeaker monitoring. Speaker selector switch allows instant impedance matching for any of several combinations of speakers. 12" permanent magnet dynamic speakers are fully fused. Sturdy steel projector baffles provide efficient concentrated sound projection with maximum clarity of tone.

Particularly suited to modern industrial applications: plant-wide health and pep

### USED BY

**Factories**  
**Army Camps**  
**Stadiums**  
**Theatres**  
**Auditoriums**  
**Athletic Fields**

**Schools**  
**Shipyards**  
**Band Fields**  
**Air Fields**  
**Warehouses**  
**Armories**

talks, safety campaigns, war bond sales messages, etc. The ideal system for reproduction of music to relieve monotony—a method already proved and adopted by many plants to increase accuracy and production. Prevents accidents resulting from monotony of machine operations.

## 60 WATT INDUSTRIAL SYSTEM

The **60 Watt Industrial System Complete** includes 1—**Knight 60 Watt Deluxe Amplifier** with tubes, less phono-top which is listed separately as an optional accessory. 1—Shure Model 708-A "Stratoliner" high-impedance crystal microphone with 18 ft. shielded cable and connector. 1—Shure Model A84A "press-to-talk" switch. 1—Deluxe chrome-finished 10" desk stand. 1—**Knight** Safesided heavy-duty 12" dynamic speakers in Kainer steel projector with mounts. Less cable. (See Listing below). 4—Universal line-matching transformers. With instructions. For 110 volts, 60 cycles AC. Wt., 200 lbs. **93-196. Net Price Complete \$184.50**

**93-197. Same as above, but less projectors.** Wt., 135 lbs. **\$149.85**

For floor stand in place of desk stand add to above prices. **\$2.50**

## OPTIONAL ACCESSORIES

**93-187. Phono-Top** with Shure low-pressure pickup. For 110 V., 60 cyc. AC. Wt., 14 lbs. **NET \$14.50**

**47-410. Rubber covered 2 cond. Speaker cable. PER FOOT . . . . .3c**  
**500 Feet. . . . . \$12.01**

## 60 WATT AMPLIFIER ONLY

**60 Watt Amplifier Only.** Amplifier only as described above, but less Phono-Top and tubes. For 110 volts, 60 cycle AC operation. Shipping weight, 65 lbs. **\$90.50**

**93-181. NET . . . . . \$90.50**

**93-180. Amplifier. With tubes. Wt., 68 lbs. NET . . . . . \$98.50**

Use this high-powered amplifier for modernizing your present installation or with special equipment listed in this catalog for making up your own PA systems. See also optional equipment above. Housed in all steel case in two-tone grey crackle finish. Top cover is easily removable for servicing. Complete service diagram on bottom plate of amplifier.



## Knight 15-18 WATT DELUXE 6 V.—110 V. SOUND SYSTEMS

We've gone "all-out" for Value in this popular low-priced Mobile Sound System! Carefully engineered, incorporating every worthwhile improvement it offers more features and more usable power than other comparatively priced systems. It's rugged as a battleship and has the kind of tone that is "tops" in PA performance!

**Compact, Complete.** You get everything built-in—with phono included—ready to work from any 6 volt storage battery or from 110 volt 60 cycle AC line.

**Easy to Operate.** It's easy to set up and use this Mobile Sound System. You don't need technical knowledge or previous PA experience. You can't make a wrong connection. All accessories plug in. Just set it up and get perfect results right from the very start no matter where you may operate.

**Inverse Feedback.** This important feature gives you greater output, better tone quality; reduces hum and distortion so you can operate at higher volume. It's a quality feature.

**Safused Speakers.** Fused so they can't be damaged by overload. An exclusive Knight development that gives you absolute speaker protection—a feature you'll be sure to appreciate.

**Two Input Channels.** Amplifier takes any high-impedance mike in addition to the built-in phono pickup. Each channel has individual volume control for mixing or blending.

**Bass-Treble Control.** Gives you just the tonal emphasis you want; cuts down feedback; assures clearer speech with greater penetration for outdoor work. Not just a gadget, but a truly useful feature that adds to performance.

**Speaker Selector.** Permits quick, accurate matching of additional speakers. Simply set selector where volume and tone quality are at their best. No guessing—no bother.

**Stand-by Switch.** Saves the battery, but keeps filaments ready for quick use. Adds extra hours of use from battery; a valuable economy feature you'll find useful in the field.

**And These "Extras."** Grip-tite mike socket; separately fused on 6 and 110 volts; change over from 6 volts to 110 volts just by changing power cables; lighted control panel. Nothing overlooked; you get the most for your money.

**Complete 15-18 Watt Mobile System.** Includes 1—Knight 15-18 watt 6 volt-110 volt amplifier with tubes and built-in phono equipment; Shure crystal PA microphone cord stand and 12-foot cable and plug; 2—12" Safused PM dynamic speakers with 20-foot cables and plugs; 2—all-steel projectors; complete instructions. For 110 volts, 60 cycles AC, or 6 volts DC. Shpg. wt., 80 lbs.

**93-052. NET PRICE.....\$96.90**

**93-053. Same as above, but less projectors. Shpg. wt., 60 lbs. NET PRICE.....\$82.35**

**93-051. Amplifier as above, but with tubes. Shpg. wt., 32 lbs. NET.....\$66.10**



### AMPLIFIER SPECIFICATIONS

**Output:** Full 15 watts (6 volts), 18 watts (on AC) usable power output (23 watts peak); hum is inaudible (60 db. below rated output); **Output Impedance:** 4, 6, 8, and 500 ohms on selector; designed for PM Speakers; **Inputs:** Two, one for high impedance mike, one for built-in phono with individual controls; **Tone Control:** One bass-treble control; **Gain:** on microphone, 125 db., on phono, 75 db.; **Frequency Response:** 60-8000 CPS; **Tubes:** 1—6SJ7, 1—6SC7, 2—6X5G, 2—6X5G; **Line Drain:** AC—120 watts, DC—19 Amps, total; **Fused:** for operation on 6 volts DC, or 110 volts, 60 cycles AC; **Size:** 16 1/4" x 11 1/2" x 10 1/4". E.R.P.I. Licensed.

### 15-18 WATT AMPLIFIER ONLY

Use this universal amplifier to build a truly all-purpose system tailored to your specific needs. Amplifier has all features described at left. Supplied in sturdy, streamlined steel case. With phono top. For 6 volts DC or 110 volts, 60 cycles AC. Less tubes. Shpg. wt., 30 lbs.

**93-051. NET PRICE.....\$61.25**

**93-050. Amplifier as above, but with tubes. Shpg. wt., 32 lbs. NET.....\$66.10**

## Knight 30 WATT DELUXE 6 V.—110 V. SOUND SYSTEMS

This is the finest Mobile Sound System ever offered at this price! It's engineered right and built-right for Mobile service. Don't confuse it with ordinary equipment that can't "take it." Check the features, easy operation, ruggedness, of this quality system.

**Works Anywhere.** Work it from any 6 volt storage battery; run it from 110 volts, 60 cycles AC. Either way, we guarantee full 30 watts output.

**Four Input Channels.** You can use any two high-impedance mikes along with phono pick-up on amplifier and one additional phono pickup. You can control each mike separately. Phonos are operated by fader control.

**Inverse Feedback.** Gives you greater output—better tone quality. You can work the system at higher output levels because distortion and hum are cut down to a minimum.

**Dual Tone Controls.** Help cut down feedback. One control varies bass; the other varies treble. Bass control turned to left makes speech reproduction crisper and clearer.

**Speaker Selector Switch.** Matches any additional speakers, no guessing. Just set for best volume and tone quality.

**6 Volts or 110 Volts in a Jiffy.** Change the System from 6 volts to 110 volts in an instant. Just change plugs at rear.

**Extra Features.** Has illuminated control panel; Safused speakers; stand-by economizer switch; silencer jacks check hum when mike plug is removed; six-contact dual speaker outlets; fused on 6 and 110 volts; phone jacks; diagram.

**Compact Single Unit Design.** Amplifier, phono and power supplies are assembled in a compact, handsome steel case; size, 19 1/4" x 14 1/4" x 13 1/4".

**Complete Deluxe Mobile System.** Includes: 1—Knight 30 watt deluxe amplifier with tubes; AC and battery cables; built-in phonograph motor and pickup; 6 volt and 110 volt power output cables; 1—Knight Electro-Voice 60 dynamic microphone with 12-foot cord and plug with either desk stand or shoulder mount (specify choice); 2—Knight 12-inch Safused PM speakers with 20-foot cables and plugs; instructions. For 6 volts DC or 110 volts AC, 60 cycles. Shpg. wt., 90 lbs.

**93-152. Complete Knight 30 Watt System (less steel projectors). NET PRICE.....\$120.15**

**93-153. Same as 93-152, described above, but with 2—Kaiser steel projectors and sturdy mounting brackets added. Shpg. wt., 130 lbs. NET PRICE.....\$135.15**



### AMPLIFIER SPECIFICATIONS

**Output:** 30 watts usable (37 peak); hum is inaudible (60 db. below rated output); **Output Imp.** 2, 4, 6, 8, 250, and 500 ohms on selector available; for PM Speakers; **Input Channels:** Four, two for high-impedance mikes, each with individual controls, two for phono on fader control; **Tone Controls:** Two, one for treble, one for bass; **Gain:** On microphone, 135 db., on phono, 80 db.; **Responses:** 40-10,000 CPS; **Tubes:** 2—6SJ7, 1—6SA7, 1—6SC7, 2—6X5G, 2—6X5G; **Drain:** 140 watts AC, 24 Amps, DC; **Size:** 19 1/4" x 14 1/4" x 13 1/4". E.R.P.I. Licensed.

### 30 WATT AMPLIFIER ONLY

In streamlined all-steel case. With phono top. For 6 volts DC or 110 volts 60 cycles AC. Less tubes. Shpg. wt., 60 lbs.

**93-151. NET PRICE.....\$89.95**

**93-150. Amplifier as above, but complete with tubes. Shpg. wt., 62 lbs. NET PRICE.....\$95.35**

# Knight INTERCOMMUNICATION SYSTEMS

## STANDARD SYSTEMS

## DE LUXE SYSTEMS



**INSTANT SPEAKING COMMUNICATION—SAVES TIME, STEPS, MONEY—  
DESIGNED FOR FACTORIES, STORES, OFFICES, INSTITUTIONS, ETC.**

### MASTER-SELECTIVE SYSTEMS

### SUPER-SELECTIVE SYSTEMS

### COMBINATION TYPE SYSTEMS

Master Selective Systems consist of one Master Station and up to ten Sub-Stations. You can build up your system progressively—beginning with the Master Station and one Sub-Station, and adding other Sub-Stations as the need develops. Master Station may call any Sub-Station individually, or may call all Sub-Stations simultaneously. Sub-Stations may call Master but not each other. Will operate with as much as 2,000 feet of cable between stations. Master Selective Systems feature: **Silent Operation**—shuts out all sounds from Sub-Station locations when not in use. **Far-Reaching Power**—voice will carry clearly 25 ft. (Standard models) and up to 50 ft. (Deluxe models) from Sub-Station unit. Person called at Sub-Station may therefore answer from any distance up to 50 ft. without leaving his work as it is not necessary to operate switch when answering calls. Volume easily adjusted from a whisper to powerful room volume. **Remarkable Economy**—system costs only 15 to 20 cents per month for electric current. **Operate Anywhere** from 110-115 volts AC or DC. Tubes—1—12J7GT, 1—50L6GT, 1—35Z5GT, 1—L40CT.

Here is an unusually versatile, low-cost intercommunication system offering complete privacy of conversation and flexibility to meet all kinds of requirements in industry, offices, institutions, etc. Consists entirely of Master Station units so that several separate two-way conversations may be carried on simultaneously without cross-talk. Any one Master Station may talk to any other Master Station at will with absolute privacy. There can be no eavesdropping, no interference with conversation. Masters may call one another regardless of whether station being called has power "on" or not. Silencing feature eliminates all sound pickup when stations are not actually in use. Up to 100 feet of cable may be used between stations. Variable volume controls permit regulation from a whisper to full room volume. Housed in handsome walnut-finished cabinets, designed to fit into the finest surroundings. Finished appearance front and rear. Compact construction. Standard Models are 9 1/4" x 8" x 5 1/4"; Deluxe Models are 12" x 6" x 5 1/4". For operation from 110-115 volts AC or DC. Tubes used (in both models)—1—12J7GT, 1—50L6GT, 1—35Z5GT, 1—L40CT.

Afford the ultimate in flexibility. The convenience and time-saving advantages of these systems are without equal. Used extensively in industry, offices, schools, institutions, etc. Consists of Master Stations and Sub-Stations in any combination desired. Master Stations may call any other Master or Sub-Station; Sub-Stations may answer but cannot originate calls. No switches to operate at the Sub-Stations. All Masters may have Sub-Stations in common, or any Master may have individual Sub-Stations. Diagram illustrates typical installation: two Masters have two Sub-Stations in common, and one Master has its own Sub-Station; first Master cannot listen-in to the single Sub-Station at right. Standard Master station units have walnut cabinets, 9 1/4" x 8" x 5 1/4"; Sub-Stations have metal cabinets, 7" x 5 1/4" x 3 1/4". Deluxe units are all in walnut cabinets; Master units, size: 12" x 6" x 5 1/4"; Sub-Station units measure: 7 1/2" x 6" x 4". Suitable for the finest offices. For operation from 110 volts AC or DC. Tubes used on both models: 1—12J7GT, 1—50L6GT, 1—35Z5GT, 1—L40CT. With complete instructions.

### STANDARD MODELS

Standard models have 1-watt output; person at Sub-Stations may answer from distance up to 25 feet. Master Station in roll-top walnut-finished cabinet. 9 1/4" x 8" x 5 1/4"; Sub-Stations in attractive metal cabinets. 7" x 5 1/4" x 3 1/4".

**95-800. Standard Master Station.** Handles one to five stations. With tubes and instructions; less cable. Wt., 11 lbs. **NET EACH. \$19.95**

**95-801. Standard Sub-Station.** Shpg. wt., 4 lbs. **NET EACH. \$7.25**

**49-600. 3-Cond. cable. PER FT. . . . . 2 1/2c**

**95-810. STANDARD MASTER STATION.** Handles up to 10 sub-stations. Use Sub-Stations and cable listed above. With tubes. Shpg. wt. 11 lbs. **NET EACH. \$24.95**

### DELUXE MODELS

2 1/2 watts output. Handles up to 10 Sub-Stations. Picks up voice 50' from Sub-Station. Master Station in walnut-finished cabinet. 12" x 6" x 5 1/4"; Sub-Stations are in attractive walnut-finished cabinets, 7 1/2" x 6" x 4".

**95-815. Deluxe Master Station.** Complete with tubes, junction box and instructions. Shpg. wt., 13 lbs. **NET EACH. \$34.95**

**95-816. As above but with privacy earphone.** Lifting earphone automatically disconnects loudspeaker. Shpg. wt., 14 lbs. **NET EACH. \$43.50**

**95-817. Deluxe Sub-Station Unit.** Shpg. wt., 4 lbs. **NET EACH. \$11.25**

**49-601. 3-Cond. Cable. PER FT. . . . . 4 1/2c**

### STANDARD MODELS

The standard models of the Super-Selective Systems have 1 watt power output. Wt., 11 lbs.

**95-825. Standard Super-Selective Unit.** Two to five units may be used. Two separate two-way conversations may be held simultaneously. With tubes and instructions. **\$23.50 NET EACH.**

**49-602. 6-Cond. Cable for 95-825 units. PER FOOT. . . . . 8 1/2c**

**95-830. 10-STATION SUPER-SELECTIVE UNIT.** Identical with above, but for any number of stations from two to ten. Shpg. wt. 11 lbs. **NET EACH. \$26.50**

**49-603. 11-Cond. Cable for 95-830 units. PER FOOT. . . . . 13c**

### DELUXE MODELS

The deluxe models of the Super-Selective Systems have 2 1/2 watts power output. Up to ten stations may be used to permit five simultaneous two-way conversations with complete privacy. The deluxe systems are described in detail on the back cover of this catalog.

**95-835. Deluxe Super-Selective Unit.** With tubes, junction box, 6-foot cable, and complete instructions. 13 lbs. **\$34.95 NET EACH.**

**95-836. As above but with privacy earphone.** Lifting earphone disconnects loudspeaker so that "talk-listen" switch does not require manual operation. Works like an ordinary telephone. Shpg. wt., 14 lbs. **\$43.50 NET EACH.**

**49-603. 11-Cond. Cable for 95-835 and 95-836 units. PER FOOT. . . . . 13c**

### STANDARD MODELS

Standard Systems have 1 watt output.

**95-850. Standard Combination Master.** Two to five units may be used. With tubes and instructions. Shpg. wt., 11 lbs. **\$24.95 EACH.**

**95-851. Sub-Station unit.** Shpg. wt. 4 lbs. **NET EACH. \$6.75**

**49-610. 5-pair cable for 95-850 Masters. PER FOOT. . . . . 11c**

**49-611. 2-Cond. cable for Sub-Stations to Masters. PER FOOT. . . . . 2c**

**95-860. 10-STATION COMBINATION UNIT.** Identical to 95-850 but any combination of 10 units may be used. Shpg. wt., 13 lbs. **NET EACH. \$29.75**

**49-612. 10-pair cable for 95-860 Masters. PER FOOT. . . . . 15c**

### DELUXE MODELS

Deluxe units have 2 1/2 watts output. Up to ten units may be used, in any combination of Masters and Sub-Stations.

**95-865. Deluxe 10-Station Master Unit.** 13 lbs. **NET EACH. \$38.25**

**95-866. As above but with privacy earphone.** Lifting earphone disconnects loudspeaker. Wt., 14 lbs. **\$46.95 NET EACH.**

**95-867. Deluxe Sub-Station Unit.** Shpg. wt., 6 lbs. **NET EACH. \$11.25**

**49-612. 10-pair cable for deluxe Masters. PER FOOT. . . . . 15c**

**49-611. 2-Cond. cable for Sub-Stations to Master. PER FOOT. . . . . 2c**

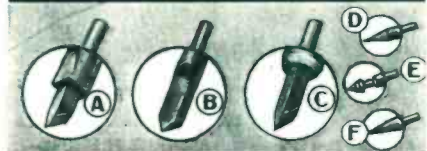
Each of the above Deluxe Models are available in systems up to 80 stations on special order. Write for details.

**HOW TO DETERMINE CABLE REQUIREMENTS.** (A) For Master-Selective Systems: Measure from Master to each Sub-Station to determine total cable needed. (B) For Super-Selective Systems: Measure from first Master to second, second to third, etc. (C) For Combination Master Systems: For required Master cable, measure from Master to Master; for required Sub-Station cable, measure from each Sub-Station to nearest Master only. (All intercommunication systems and cable available on priority orders only.)



## Needles and Accessories

## Complete Selection of Recording Blanks



### RECORDING NEEDLES

**Sapphires**—Hardest point with lowest friction of any materials available. Provides approximately 5 hours of cutting service. Can be resharpened. **Stellite**—A hard metal alloy. Similar in performance characteristics to sapphire, except provides approximately 2 hours of cutting service. **Steel**—A good needle for general use. Cutting life approximately 20 minutes.

#### SAPPHIRE CUTTING NEEDLES FIG. A.

**65-800. KNIGHT.** Precision-ground and polished sapphire cutting needles. For all coated discs. **EACH \$3.50**

**65-850. PRESTO.** Finest quality, sharpest sapphire needles available. For all acetate and similar discs. **EACH \$6.00**

**65-854.** Presto long-shank sapphire needle. **EACH \$6.00**

We resharpen sapphire needles at \$2.50 EACH.

#### STELLITE & ALLOY CUTTING NEEDLES FIG. C.

**65-801.** Made of high tenacity alloy called Stellite. **\$1.00**

**65-810. Permo Point Professional Recording Stylus.** Provides 3 to 5 hours of service. **EACH \$1.18**

#### STEEL CUTTING NEEDLES FIG. B.

Uniform flat shank steel needles. Special alloy steel hand-polished to a razor edge. For cutting all coated discs. **59.**

**65-803. KNIGHT.** Package of 5. **NET \$1.50**

**65-900. KNIGHT.** Single needle as above. **EACH \$1.50**

**65-804. RECOTON.** Diamond-dust polished. Long-life. Pkg. of 5. **NET \$95.**

#### PLAYBACK NEEDLES FOR COATED DISCS

**65-815.** Recoton Sapphire. Fig. D. Up to 10,000 Plays. **NET \$3.60**

**65-820.** "Walco" Sapphire. Fig. E. 2500 plays. **NET \$73c**

**65-825.** Red Shank Steel Needle. Fig. F. Pkg. of 100. **38c**

**65-853.** Permo Transcription Needle. Semi-Permanent type. Gives approx. 50 hours service. **NET \$69c**

## RECORDING ACCESSORIES

### RECORD THREAD REMOVER

Rotary brush sweeps up thread cut by recording stylus. Has flange with hole to fit center spindle of turntable. For all 10" turntables. **Shpg. wt. 2 lbs.**

**69-920. NET \$98.**

**69-921.** 17-16" size. Less flange and screw adjustment. **\$1.50**

### GROOVE ANALYZER

For use in determining quality and depth of record grooves and condition of needles. Easily adjustable focus. Magnifying power, 15 times. Illuminates disc surface by self-contained No. 1 battery and small bulb. Finished in black. With complete instructions. **Shpg. wt. 1 lb.**

**69-926. NET \$2.25**

### CUTTING LUBRICANT

**69-900.** Cutting Lubricant. For use on disc before cutting. Reduces surface noise. For acetate or aluminum discs. 4-ounce bottle. **NET \$29.**

### RECORD MAILING ENVELOPES

Heavy envelopes with cardboard inserts. Mail discs safely.

**65-500.** For 6" discs. Pkg. of 12. **Wts. 2 lbs. NET \$75c**

**65-501.** For 8" discs. Pkg. of 12. **Wts. 3 lbs. NET \$85c**

**65-502.** For 10" discs. Pkg. of 12. **Wts. 5 lbs. NET \$1.05**

### RECORD LABELS

Gummed record labels: have blank spaces for title, No., etc.

**65-521.** Shpg. wt. 2 oz. 50 For. **25c**

**65-522.** Shpg. wt. 2 oz. 250 For. **90c**

### ASTATIC RECORDING HEADS

Available only on exchange. Send old head with order.

**65-125.** Model X-26. Crystal Head. Size 1 1/4 x 3/4".

**65-127.** Model X-26. As above, except with flange bracket. For Knight, Wilcox Gay, General Industries, etc.

**65-126.** Model X-29A. Crystal Head. Size 1 1/4 x 3/4".

**65-130.** Model C-42. Crystal Head. Size 3/4 x 3/8".

**NET \$6.76**



Here is the largest selection of nationally famous recording discs this field and we specialize in high quality discs and our large stock of fast-moving—assuring you of fresh discs and prompt service always. Buy in quantities and save more.

## HIGH-QUALITY PROFESSIONAL BLANKS

Finest professional recording blanks made. Designed for recording studios, broadcast stations, etc. Smooth surface and extreme flatness meet professional requirements. The new glass-base blanks have been successfully developed as efficient alternates for all aluminum and steel discs.

### PRESTO DISCS

#### "GREEN SEAL" GLASS BASE

Heavy glass base gives exceptionally smooth surface. "G" coating on both sides. Discs give crisp cut with minimum of surface noise. Moisture proof. 1/16" thick. Shipped express only.

| No.    | Dia.    | Wt.    | NET    |
|--------|---------|--------|--------|
| 69-005 | 12"     | 2 lbs. | \$1.25 |
| 69-007 | 13 1/2" | 2 lbs. | 1.80   |
| 69-006 | 16"     | 3 lbs. | 2.50   |

#### OVERSIZE "GREEN SEAL"

For making master records in processing. Discs 1 1/4"-1 1/2" larger than standard size records. Glass base. Smoothly coated on both sides.

| No.    | Dia.    | Wt.    | NET    |
|--------|---------|--------|--------|
| 69-010 | 11 1/2" | 2 lbs. | \$1.25 |
| 69-011 | 13 1/2" | 3 lbs. | 3.00   |
| 69-012 | 17"     | 3 lbs. | 3.00   |

#### "RED SEAL" GLASS BASE

High quality discs, same as "Green Seal" glass base types above except varies from .075" to .104" in thickness (no thickness selection possible).

| No.    | Dia. | Wt.    | NET    |
|--------|------|--------|--------|
| 69-040 | 10"  | 2 lbs. | \$0.80 |
| 69-041 | 12"  | 2 lbs. | 1.00   |
| 69-042 | 16"  | 3 lbs. | 1.80   |

We can supply all Presto Discs. Write for quantity discounts.

### AUDIODISCS

#### "RED LABEL" GLASS BASE

Made especially for professional recording requirements. Glass base with extremely smooth coating on both sides gives superior frequency response and minimum surface noise. Overall thickness, .062". Shipped express only.

| No.    | Dia. | Wt.        | NET    |
|--------|------|------------|--------|
| 69-070 | 10"  | 1 1/4 lbs. | \$1.00 |
| 69-071 | 12"  | 2 lbs.     | 1.25   |
| 69-072 | 16"  | 3 lbs.     | 2.50   |

#### "YELLOW LABEL" GLASS BASE

Especially suitable for studios and schools. Smooth coating on both sides.

| No.    | Dia. | Wt.        | NET    |
|--------|------|------------|--------|
| 69-090 | 10"  | 1 1/4 lbs. | \$0.80 |
| 69-091 | 12"  | 2 lbs.     | 1.00   |
| 69-092 | 16"  | 3 lbs.     | 2.00   |

Write for Audiodisc quantity discounts to schools, studios, etc.

#### GOULD-MOODY "GLASS BASE" DISCS

A low priced, high grade professional Broadcaster's recording disc. Acetate coated. Excellent frequency response. .063" thick overall. 1 hole type.

| No.    | Dia. | Wt.        | NET    |
|--------|------|------------|--------|
| 69-050 | 10"  | 1 1/4 lbs. | \$0.73 |
| 69-051 | 12"  | 2 lbs.     | .91    |
| 69-052 | 16"  | 3 lbs.     | 1.83   |

## SEMI-PROFESSIONAL AND HOME TYPE BLANKS

Suitable for recording home programs "off-the-air," performances of speech and music students, etc. For use with all recorders. Recording time in minutes at 110 lines per inch and 78 RPM: 6"-1 1/2", 8"-2", 8 1/2"-4 1/2", 12"-3 1/2".

### FLEXIBLE BASE DISCS

#### KNIGHT HIGH-QUALITY

High-quality, double-faced recording discs. Made of durable paper-board base. Uniformly coated to mirror-smoothness. Non-inflammable: Underwriters' Approved. Low surface noise. Average wt. 1 1/2 lbs. per package.

| No.    | Dia.   | Quan.     | NET    |
|--------|--------|-----------|--------|
| 69-150 | 6 1/2" | Pkg. of 6 | \$0.35 |
| 69-151 | 8"     | Pkg. of 6 | .59    |
| 69-152 | 10"    | Pkg. of 6 | .88    |

#### RECORDISC "YELLOW LABEL"

Paper base, non-inflammable discs. Coated on both sides. Uniform thickness. Av. wt., 2 lbs. per package.

| No.    | Dia.   | Quan.     | NET    |
|--------|--------|-----------|--------|
| 69-170 | 6 1/2" | Pkg. of 6 | \$0.50 |
| 69-171 | 8"     | Pkg. of 6 | .80    |
| 69-172 | 10"    | Pkg. of 6 | 1.20   |

### \*METAL BASE DISCS

#### KNIGHT STANDARD

Non-inflammable even coating on both sides. 6 1/2" and 8" are .032" thick; 10"- .036". Av. shpg. wt., 12 oz

| No.    | Size   | 1-12 | 12-UP |
|--------|--------|------|-------|
| 69-180 | 6 1/2" | 15c  | 14c   |
| 69-181 | 8"     | 25c  | 20c   |
| 69-182 | 10"    | 29c  | 25c   |

#### RECORDISC "GREEN LABEL"

Double-faced, evenly coated flat discs. Underwriters' Approved coating.

| No.    | Dia.   | Wt.    | NET |
|--------|--------|--------|-----|
| 69-210 | 6 1/2" | 10 oz. | 17c |
| 69-211 | 8"     | 12 oz. | 23c |
| 69-212 | 10"    | 14 oz. | 33c |

\*While steel is available, metal discs will be shipped. When sold out, new fibrous thermoplastic base discs will be supplied.

#### PRESTO "MONOGRAM"

Paper base, double-faced high-quality discs. Evenly coated with Presto "G" material. Thickness, .08". Especially recommended for home recordings. Write for Presto quantity prices.

| No.    | Dia.    | Wt.    | NET    |
|--------|---------|--------|--------|
| 69-030 | 6"      | 4 oz.  | \$0.20 |
| 69-031 | 8"      | 6 oz.  | .35    |
| 69-032 | 10"     | 8 oz.  | .50    |
| 69-033 | 12"     | 8 oz.  | .70    |
| 69-035 | 13 1/2" | 9 oz.  | 1.00   |
| 69-034 | 16"     | 10 oz. | 1.50   |

#### RECORDISC "ORANGE LABEL"

Excellent quality low-cost discs with cellulose nitrate coating on processed paper bond base. Double-faced.

| No.    | Dia.   | Wt.    | NET |
|--------|--------|--------|-----|
| 69-110 | 6 1/2" | 5 oz.  | 13c |
| 69-111 | 8"     | 8 oz.  | 17c |
| 69-112 | 10"    | 10 oz. | 24c |

#### KNIGHT HEAVY-DUTY

Quality discs for semi-professional use. Nitrate coated on both sides.

| No.    | Dia.   | Wt.    | NET |
|--------|--------|--------|-----|
| 69-130 | 6 1/2" | 10 oz. | 18c |
| 69-131 | 8"     | 12 oz. | 24c |
| 69-132 | 10"    | 14 oz. | 26c |
| 69-133 | 12"    | 1 lb.  | 59c |

#### RECORDISC "BLUE LABEL"

Heavy base nitrate coated on both sides. For all semi-professional use.

| No.    | Dia.   | Wt.    | NET |
|--------|--------|--------|-----|
| 69-120 | 6 1/2" | 10 oz. | 20c |
| 69-121 | 8"     | 12 oz. | 27c |
| 69-122 | 10"    | 14 oz. | 40c |
| 69-123 | 12"    | 1 lb.  | 67c |

# SHURE MICROPHONES



## SHURE UNI-DIRECTIONAL MICROPHONES

Overcome feedback problems. Uni-directionals are dead at the rear; eliminate room acoustics and background noises. Permit more volume and closer placement of mikes.

### "UNIPLEX" CRYSTAL

Model 730A. The lowest-priced true cardioid Uni-Directional microphone available. Gives excellent reproduction, from 30 to 10,000 CPS. Output level is —63 db. at front; but at rear is down additional 15 db. Tiltting head. Shure "Uniphase" principle permits more volume without howling. Wide-angle response from the front, but dead at the rear; makes microphone placement easy because feedback is reduced. Satin chrome finish. Head  $3\frac{1}{4}$ " dia.,  $3\frac{1}{2}$ " deep. 25-ft. shielded cable.  $\frac{3}{4}$ "-27 thread. Wt., 4 lbs.  
**99-355. \$20.87**  
**NET.**

### "UNIDYNE" DYNAMIC

Model 55C. Smooth wide-angle response from the front, dead at the rear. Covers 40 to 10,000 CPS. Output, —55 db. Satin chrome finish. Head tilts 90°.  $\frac{3}{4}$ "-27 thread. Head size,  $4\frac{1}{4}$ " high,  $3\frac{1}{4}$ " wide,  $3\frac{1}{2}$ " deep. High Impedance model, or input circuit of 100-10,000 ohms or more. With 25-ft. cable and internal transformer. Wt.,  $\frac{4}{16}$  lbs.  
**99-356. \$29.11**  
**NET.**  
 Model 55A. 35-50 ohms.  
**99-357. \$27.64**  
**NET.**  
 Model 55B. 200-250 ohms.  
**99-370. \$29.11**  
**NET.**

## SHURE 556 SUPER-CARDIOID DYNAMIC

Same appearance as 55C above. Highly unidirectional. Rejects sound from rear, yet has wide-angle front pickup. Decreases pickup of echo and random noise by 73%. Head can be tilted 90°. Moving coil unit immune to vibration and wind. Response, 40 to 10,000 CPS. Equipped with 18" shielded cable. Standard  $\frac{3}{4}$ "-27 thread. Shpg. wt., 5 lbs.  
**99-366. 556A. Output.—83 db. Into 35-50 ohms.**  
**99-371. 556B. Output.—63 db. Into 200-250 ohms. \$44.10**  
**NET EACH.**



## SHURE QUALITY CRYSTAL MIKES

### MODEL 708A. FIG. A.

Semi-directional type with smooth wide-range frequency response of 30-6000 CPS. Output.—49 db. Die-cast case finished in iridescent gray with chrome type trim.  $\frac{3}{4}$ "-27 thread. 7-foot shielded cable. Wt.,  $\frac{1}{16}$  lbs.  
**99-363. NET.—\$11.47**  
**99-364. As above but with 18-foot cable. NET.—\$11.94**

### MODEL 717A. FIG. C.

Dependable crystal hand-mike. Ideal for use with Home Recorders, Window Demonstration Systems, Paging Systems, Amateur Radio Transmitters, etc. Plastic case,  $2\frac{1}{2}$ " diam. x 6". Smooth response, suitable for both voice and music. Output.—49.7 db. Moisture-sealed Bimorph crystal, mechanically isolated. With 7-ft. shielded cable. 1 lb.  
**99-360. NET.—\$5.85**

### MODEL 7A. FIG. B.

A new economy microphone having high quality. Smooth wide-range response from 30 to 10,000 CPS. Output.—53 db. Ideal for PA installations, call-systems, etc.  $\frac{3}{4}$ "-27 thread. With 7-ft. cable. Wt.,  $\frac{1}{16}$  lbs.  
**99-350. NET.—\$9.70**  
**99-351. As above, but with 12-ft. cable. NET.—\$10.58**

### MODEL 707A. FIG. D.

Iridescent gray diecast case with highly polished plating on front grille. Smooth frequency response for both voice and music. Output.—49.7 db. Standard  $\frac{3}{4}$ "-27 thread. Diam.,  $2\frac{1}{4}$ ", 5" overall. Moisture-sealed Bimorph crystal, mechanically isolated. With 7-foot shielded cable. Wt., 2 lbs.  
**99-361. NET.—\$7.35**  
**99-362. 707A. As above, but with 18" cable. NET.—\$8.23**

## SHURE "100" CARBON HANDMIKES

Single-button carbon type. Widely used in Police transmitters and other equipment necessary to the War Program. Have excellent response for clear voice reproduction. Light, sturdy case fits in palm of hand. Blue-gray crackle finish and polished nickel grill. Push-to-talk switch. With suspension hook and bracket for wall mounting.  $3\frac{1}{2}$  x  $1\frac{1}{2}$  x  $2\frac{1}{2}$ "-4 ft. cable. Shpg. wt., 1 lb.  
**99-368. 101A. RCA type. SPST relay switch, normally open, has separate leads.**  
**99-369. Model 102A. Motorola type. DPST switch for mike and relay. \$14.70**  
**NET EACH.**



## COMPACT LAPEL TYPE MICROPHONES

Fig. A. Shure 768. Ideal for lecturers. Small in size,  $1\frac{1}{4}$ " dia. Light weight, only  $1\frac{1}{2}$  oz. Has high output, gives high quality reproduction. Gray finish. Very inconspicuous. Complete with handy lapel-clip, and 25 feet of shielded single conductor cable. Shpg. wt., 1 lb.  
**99-372. NET.—\$14.70**

Fig. B. Universal. Single button type. 200 ohms impedance. Has low-hiss carbon button and pure gold-spot-center diaphragm. Black bakelite case. Output.—38 db. Screw terminals at rear. Only  $1\frac{1}{4}$ " dia.,  $\frac{1}{2}$ " thick. Net wt.,  $1\frac{1}{2}$  oz. Shpg. wt.,  $\frac{1}{16}$  lb.  
**99-470. NET.—\$2.40**



## AMPERITE PRESSURE-GRADIENT DYNAMIC

Uni-directional mike; excellent for PA, Broadcast, or Recording installations. Reduces feedback. Has unusually high output level, —55 db. Frequency response, 40-10,000 CPS. 25-ft. cable and switch. Chrome finished case designed according to modern acoustic principles. Extremely rugged. 3 lbs.  
**99-403. PGL. 200 ohms. \$18.82**  
**NET EACH.**  
 As above, but flat from 70 to 8,000 CPS. With 12-ft. cable.  
**99-408. PGL. 200 Ohm. \$14.70**  
**99-404. PGH. High Imp. NET EACH.**



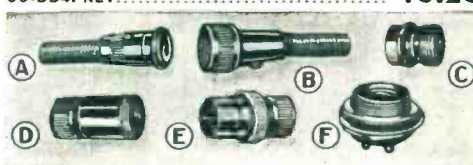
## ELECTRO-VOICE VELOCITY MICROPHONES

Fig. A. Electro-Voice V-2. Ideal for use where wide response with low feedback is required. Response is essentially flat from 35-11,000 CPS; output.—64 db. Case design eliminates cavity resonance. Cradle mounting;  $\frac{3}{4}$ "-27 thread. With 20-foot cable and on-off switch. Shpg. wt., 4 lbs.  
**99-330. High Impedance. \$22.05**  
**99-331. 50 Ohms. NET EACH.**

Fig. B. Electro-Voice V-1. Combines high-quality performance and extremely compact size. Cradle type. On-off switch. Response from 40 to 10,000 CPS. Output level.—65 db.  $\frac{3}{4}$ "-27 thread. 20-foot cable and connector. Gummert finish. Has built-in shock-absorber. Wt., 4 lbs.  
**99-332. High Impedance. \$16.17**  
**99-333. 50 Ohms. NET EACH.**

## KNIGHT-ELECTRO-VOICE DYNAMIC

Fig. C. Head has fixed tilt of 22° for proper use by speakers or vocalists. Fitted with special acoustic baffle for use where directional pickup is desired. Frequency response is 40 to 10,000 CPS; output level is —55 db. Light gunmetal finish. High Impedance. With 12-foot shielded cable.  $\frac{3}{4}$ "-27 thread. Shpg. wt., 4 lbs.  
**99-334. NET.—\$13.23**



## QUALITY MICROPHONE CONNECTORS

Laminated bakelite insulation.  $\frac{3}{4}$ "-27 threads. Av. shpg. wt., 3 oz.

**41-955. Fig. A. Male connector. Fits 41-958. NET.—24c**  
**41-958. Fig. B. Female with coupling ring. NET.—29c**  
**41-965. Fig. C. Male chassis mount mike connector. Non-shorting type. Fits 41-958. Mounts in  $\frac{1}{4}$ " hole. NET.—18c**  
**41-966. Fig. C. Like 41-965, but has heavy coil spring contact. For  $\frac{1}{4}$ " mounting hole. Fits 41-958 connector. NET.—24c**  
**41-967. Fig. C. Like 41-966, but shorting type. Requires  $\frac{1}{4}$ " mounting hole. Prevents open circuit hum. NET.—26c**  
**41-970. Fig. D. Three-circuit connector. Female type. NET.—59c**  
**41-971. Fig. E. Male connector for 41-970. EACH NET.—59c**  
**41-972. Fig. F. Three-circuit chassis connector. Female type. Fits male plug 41-971, above. Requires  $\frac{1}{4}$ " mtg. hole. NET.—29c**

## SHURE MIKE "ON-OFF" SWITCHES

**41-930. Type A83A. Plug-in rotary switch for Shure connector type mikes (see illustration). Easy to install. No wiring. Fits all mike stands with  $\frac{3}{4}$ "-27 thread. Ideal for Paging or Communication systems. Shpg. wt., 2 lbs. NET.—\$2.35**

**41-931. A84A. As above but has "Press to Talk" on-off switch. NET.—\$2.65**





# ASTATIC MICROPHONES



## QUALITY CRYSTAL MICROPHONES

MODEL T-3, FIG. A.

An excellent wide-range crystal mike. Response is substantially uniform from 30 to 10,000 CPS, providing ample range for all speech and musical requirements. Output level, —52 db. Tilt-head provides effective means of controlling acoustic feedback. Bullet-type case, finished overall in polished chrome.  $\frac{3}{4}$ "-27 thread. With 15-foot shielded cable. Less stand, Wt., 2 lbs. **\$14.70**  
99-300. NET.....

MODEL D-104, FIG. B.

Made especially for voice reproduction. Covers entire speech range with rising response from 500 to 4,000 CPS. High output level, —48 db. Shockproof mounting. Quality not affected by close talking. Chrome type finish. Dia.,  $\frac{3}{4}$ "-27 thread. Has 7 ft. shielded cable. Wt., 2 lbs. **\$13.23**  
99-309. NET.....

MODEL N-30, FIG. D.

Features exceptionally smooth response and faithful reproduction. Frequency response of 30-10,000 CPS is substantially flat and free from peaks. Output level, —52 db. Die-cast case has tilting swivel. Adjustable for directional or semi-directional pickup. Finished in chrome. Concentric cable connector permits quick interchange of cable. Case,  $\frac{3}{4}$ " diam.,  $\frac{1}{2}$ " overall height;  $\frac{3}{4}$ "-27 thread. With 15-foot shielded cable. Wt., 2 lbs. **\$10.29**  
99-303. NET.....

MODEL JT-30TT, FIG. C.

Semi-directional crystal type. Provides good performance at low price. Response from 30 to 6,000 CPS; output, —52 db. In a compact two-tone opalescent gray finished case, threaded  $\frac{3}{4}$ "-27. With 15-foot cable and concentric connector. Wood handle and interlocking metal base included; permit use as desk or hand microphone. Wt., 3 lbs. **\$9.11**  
99-302. NET.....



## LOW-COST MODEL Y30 CRYSTAL MICROPHONE

Astatic's newest addition to the low-priced microphone field. Ideal for home recording, as well as regular public address use. Frequency response, 30-6,000 CPS. Has good bass response and is free from objectionable peaks. High output; —52 db. "Floating cartridge" reduces effect of vibrations transmitted through case or stand. Heavy die-cast cartridge housing. Equipped with wooden handle, 7 ft. shielded cable, and interlocking metal base. May be used as desk or hand mike. Finished overall in rich brown hand enamel. Shipping weight, 3 lbs. **\$7.35**  
99-340. NET.....

## ASTATIC MODEL DN DYNAMIC MIKE

A semi-directional, all-purpose dynamic microphone. Has "unitary" moving coil together with quality Alnico magnets. Resonance peaks eliminated by special acoustic circuit. Audio response is substantially flat from 50-7,000 CPS. Output, —55 db. Tilting head, permits semi- or non-directional positioning for best pickup. Two-tone opalescent gray and chrome finish. With stand-type plug and connector, spring cable protector, and 15-foot shielded cable. Has  $\frac{3}{4}$ "-27 thread. Shpg. wt., 2 1/2 lbs. **\$13.23**  
99-304. High impedance. NET.....  
99-305. 50 Ohms. \$11.76

## ELECTRO-VOICE CARBON MIKES

99-343. Fig. A. A double-button carbon mike in streamlined case. Impedance, 200 ohms per button. Excellent frequency response of 40 to 8,000 CPS with a minimum of carbon hiss. Has long life. Output, —42 db. Gunmetal finish.  $\frac{3}{4}$ "-27 thread. Shpg. wt., 2 lbs. **\$4.70**  
99-344. Fig. B. An outstanding value in a double-button carbon mike. Designed especially for ring and spring suspension. Impedance, 200 ohms per button. Response, 45 to 7,000 CPS. Pyraluminal diaphragm. Gunmetal finish. Attractive grille front. Screw terminals. Shpg. wt., 2 lbs. **\$3.23**

## CARBON MIKE ACCESSORIES

41-990. No. 100 size carbon granules. Will fill two buttons. NET 47¢  
41-991. Set of 8 springs for mounting mike in ring holder. NET .17¢



## AMPERITE KONTAK MICROPHONES

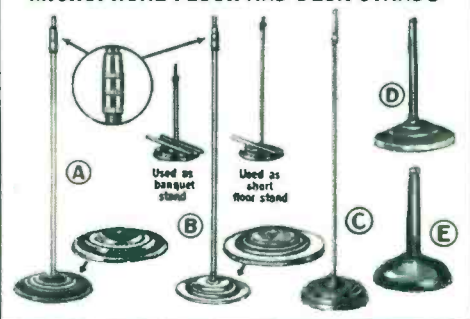
For all string instruments such as guitar, violin, piano, or for wind instruments. Reproduces vibrations of instrument through its entire audio range. Easily installed without tools. Up to five Kontak mikes can be wired in parallel for complete control of orchestra instruments.  
Fig. C. Frequency response 60 to 6,000 CPS. High impedance. SKH for use with high-gain amplifiers. KR output sufficient for direct use with most tube sets (after 1935) or with low-gain amplifiers. With 15-foot cable. Less volume control. Wt., 2 lbs. See below for accessories.  
99-406. SKH. Low output. **\$7.06**  
99-407. KR. High output. NET EACH.....  
99-408. Fig. B. KKH. Like 99-406 but with volume control. High impedance. Has 25-foot cable. NET.....  
41-900. Fig. A. Foot volume control. 2 lbs. NET.....  
41-901. Kontak Clamp. Clamps mike to inst. 4 oz. NET.....  
41-902. Kontak Strap. For flat-top guitars. 4 oz. NET.....

## ECONOMY MUSICAL INSTRUMENT MIKES

Fig. A. Can be used on any musical instrument. Reproduces vibrations as instrument is played. Will work with all amplifiers and most radio sets. Response, 80-5,000 CPS; output, —28 db. High impedance. With volume control and 15-foot cable. Size,  $3 \times 1 \times \frac{1}{2}$ ". Easily mounted on body of instrument. Shpg. wt., 1 lb.  
99-520. NET.....  
99-521. Fig. B. As above, but less built-in volume control. Size,  $1 \frac{1}{4} \times 1 \times \frac{3}{4}$ ". Shpg. wt., 1 lb. NET.....  
94-025. Bridge Clamp. Shpg. wt., 4 oz. NET.....



## MICROPHONE FLOOR AND DESK STANDS



### STANDARD ADJUSTABLE

Fig. A. Telescoping upper section is chrome finished; adjustable from 35° to 68°;  $\frac{3}{4}$ "-27 thread. Lower section is gray enameled. New "easy-grip" positive-action clutch. 10" diameter, 8 lb., three-step base is finished in gray crackle. High quality stand at low cost. Wt., 12 lbs. **\$4.25**  
94-000. NET.....

### DELUXE ADJUSTABLE

Fig. A. Chrome-finished stem adjusts from 35° to 60°; has "easy-grip" clutch. Three-step 10-lb. base, 10" diam., is chrome-finished. With center step in contrasting black enamel.  $\frac{3}{4}$ "-27 thread. Tops in professional appearance. Shpg. wt., 12 lbs. **\$5.25**  
94-004. NET.....

### 3-WAY TAKE-DOWN

Fig. B. For use as 14" banquet stand, 45° or 59° floor stand. Grey base has red enamel ring. Lower stem is dark grey; top adjustable section is chrome. 10" dia., 8-lb. base.  $\frac{3}{4}$ "-27 thread. Easy to take down and assemble. Shpg. wt., 12 lbs. **\$4.95**  
94-001. NET.....

### LIGHTWEIGHT ADJUSTABLE

Fig. C. A lightweight stand for portable recorders. PA systems, etc. Baked enamel stem and base; with locking positive-action clutch. Telescoping stem extends from 33" to 50"; standard  $\frac{3}{4}$ "-27 thread. Has 7-lb. base, 9" in diameter. Wt., 10 lbs. **\$3.10**  
94-003. NET.....

### 10" DESK STAND

Fig. D. A popular desk-type mike stand. Stem is chrome finish; heavy cast-iron base is two-tone finish of gray crackle and baked red enamel. Standard  $\frac{3}{4}$ "-27 thread. Wt., 6 lbs. **\$1.30**  
94-005. NET.....  
94-006. As above, but in all chrome finish. NET.....

### TAKE-APART STAND

Fig. E. A handy low-cost stand for desk or hand use. One twist of the handle locks it securely in base for use as a table stand, or release handle for use in hand. Has metal base and wood handle. Metal top threaded  $\frac{3}{4}$ "-27. Height 6 1/2". Base diameter, 4 1/4".  $\frac{3}{4}$ "-27 handle. Wt., 1 lb. **\$1.09**  
94-036. NET.....

# ASTATIC QUALITY PICKUPS



## CL-407 DELUXE PICKUP

Low-pressure crystal pickup with basically different design results in new concepts of performance. Functionally-curved off-set arm assures low tracking error with balanced sidewall pressure. Needle pressure is 1 1/4 ounce for longer needle and record life and less surface noise. Die-cast pickup arm will accommodate any replaceable needle. Furnished with both slotted set screw and thumb needle screw. Range: 30 to 4500 CPS; output, 0.6 volts. Uses standard L-40 cartridge. Mt. center distance, 8 inches. Finished in rich maroon. With shielded cable. Shipping wt., 2 lbs. **65-136. \$5.88**

## STANDARD MODELS

Carefully balanced crystal pickups for use in all types of record reproducing equipment. Audio response, 60-5000 CPS. Ball-bearing swivel base permits free arm movement. Needle pressure, 2 1/4 oz.; output, 2.5 V. Cushioned arm. Uses standard type B-2 cartridge. With shielded cable and arm rest. Has blackwired finish. Wt., 2 1/2 lbs. **65-106, S-8. For 10" and 12" records. \$5.88**  
**65-107, S-12. For 10" to 16" records. NET. \$7.35**

## MODEL KL-407

Sturdy die-cast pickup arm with offset crystal head assures minimum tracking error and surface noise. Easy to load needle chuck; vibration-proofed for best reproduction. For all 10" to 12" records. Response, 30 to 4500 CPS. Needle pressure, 1 1/4 oz.; output voltage, 0.6 V. across 1/2 megohm load. With durable shielded cable and locking arm rest. Uses type L-40 cartridge. Finished in rich maroon. Shipping weight, 1 1/2 lbs. **65-135. \$3.82**

## MODEL SL-8

This straight-arm crystal pickup is particularly suited for playing lightly cut home recordings. Incorporates die-cast and spring-actuated cushioned arm finished in stately brown. Mounting center adjustable to 7 or 8 inches. Needle pressure, 2 1/4 oz.; output, 1.4 V. across 1/2 megohm load. Response, 10-4500 CPS. For 10" and 12" records. With L-26 cartridge. Provides excellent response. Length, 9 1/2"; height, 1 1/4". Wt., 1 1/2 lbs. **65-114. \$2.91**



## ASTATIC CARTRIDGE SERVICE

Cartridges are available only on exchange basis. Send old cartridge with order—we will allow 15c credit. Your old unit will be repaired or replaced. Cartridge shipped is guaranteed.

| Stock No. | Model | Fig. | Used In                           | NET    |
|-----------|-------|------|-----------------------------------|--------|
| 65-150    | LP-6  | A    | FP-8                              | \$4.70 |
| 65-151    | LP-21 | A    | FP-18                             | 4.70   |
| 65-152    | LP-23 | A    | FP-38                             | 4.70   |
| 65-154    | L-22  | C    | AL-8                              | 2.94   |
| 65-156    | L-24  | C    | Record changers                   | 2.94   |
| 65-155    | L-25  | B    | FL-58                             | 2.94   |
| 65-156    | L-26  | C    | D9-SL8                            | 2.35   |
| 65-153    | L-40  | A    | FL-48, CL-407, KL-407             | 2.35   |
| 65-161    | L-50  | C    | Record changers                   | 2.35   |
| 65-157    | M-22  | C    | Q-7                               | 2.94   |
| 65-158    | B-2   | D    | S-8, S-12, B-10, B-16, AB-8, AB8M | 2.94   |
| 65-159    | B-4   | D    | Record changers                   | 2.94   |

## ASTATIC TRU-TAN

Fig. A. A high-quality deluxe crystal phono pickup of the true-tangent type for finer recordings. Offset crystal head always assures correct needle-tracking for improved reproduction and lower surface noise. Response, 50 to 7000 CPS. Needle pressure, 2 1/4 oz.; output voltage, 2.5 V. across 1/2 megohm load. With B-2 cartridge. Length, 12 1/2"; height, 2 1/4". Telephone black finish. Shpg. wt., 3 lbs.

**65-112, B-10. For 10" and 12" recs. \$10.29**

**65-113, B-16. For records up to 16". NET. \$13.23**

## MODEL AB-8

Fig. B. A crystal pickup designed to provide better reproduction and lower surface noise. Spring-actuated cushion reduces effects of any motor vibration. Response, 50 to 5000 CPS. Head in offset for proper tracking. Needle pressure, 2 1/4 oz.; output voltage, 2.5 V. With B-2 cartridge, internally damped to insure permanence. For all 10-inch or 12-inch records. Mounting center distance, 8 inches. Brown statuary finish. With single-conductor shielded cable and arm rest. Length, 10 1/2"; height, 2". Wt., 4 1/2 lbs.

**65-105. \$5.88**

## 16" LOW PRESSURE

Low Pressure, crystal pickup with permanent sapphire stylus. HP-16 output, .85 Volts; range, 30-7000 CPS. HP-36 output, .65 Volts; range, 30-10,000 CPS. Counter-balanced arm for needle pressure of only 1 oz. assures maximum record life, reduces needle hiss. For records up to 16 inches. Length, 15 inches. Equipped with shielded cable and arm rest. Finished in rich maroon. Mtg. centers, 12 inches. Gives exceptionally faithful reproduction. 2 lbs.

**65-108, HP-16. \$5.109.**  
**HP-36. EACH. \$14.70**

## SHURE "HI-LO" CRYSTAL PICKUPS



Length, 8 3/4". Mounts in 1/4" or 1/2" hole. With shielded cable.

**65-302, Model 97A 1-Ounce Crystal Pickup.** Complete with arm rest, but less needle. Output 1.4 V. at 1000 c.p.s. Frequency range, 60 to 7000 c.p.s. Needle pressure, 1 ounce. For permanent type needles. Use of set screw or thumb screw permits changing needles without replacing entire cartridge. **\$3.23**

**65-303, Model 95A Semi-Lo-Pressure Pickup.** Same as Model 97A, above, but has 2-oz. needle pressure and 3 V. output at 1000 CPS. For use with any removable needle. Uses W40A cartridge rest. Wt., 14 oz. NET. **\$3.23**

## SHURE CRYSTAL CARTRIDGES

**65-352, W42A.** For Shure 97A and similar pickups with 1 oz. pressure. Less needle. Wt., 4 oz. NET. **\$2.35**

**65-353, W40A** for Shure 95A and similar pickups with 2-oz. pressure or more. Output, 3 V. Less needle, 4 oz. NET. **\$2.35**

**65-350, W27E.** Universal replacement. With parts for lug, screw, or pin terminal. 2 1/4" L., 3/4" W., 3/4" H. 4 oz. NET. **\$2.94**

**65-354, W20C.** Replacement crystal cartridges for Shure 98A, 98AW, 99C, and 99CW crystal pickups. 4 oz. NET. **\$2.35**

Cartridges are sold on exchange basis. Send old cartridge with order—15c credit allowed. Your old unit will be repaired or replaced.

Crystal pickups of entirely new basic design. Have high output, low pressure. New bearing seats overcome "pitch" effect. Offset head corrects tracking error. The results are instantly recognizable in the superb realism of reproduction. Surface scratch is reduced to an absolute minimum, and record life is increased materially. Plastic mahogany arm. Has playing radius of 7 1/4", sufficient for records up to 12" dia.

## BRUSH HIGH-FIDELITY PICKUPS

**Brush PL-25 Crystal Pickup.** Response flat within  $\pm 2.5$  db from 50-6000 CPS, slight rise to 10,000 CPS. Sapphire stylus 1-oz. needle pressure. For 10" 12" records. 7 lbs. **65-000. NET. \$19.40**

**65-020, High-Impedance Equalizer** for above. 1 lb. **\$1.47**

**Brush Model PL-26, Crystal Pickup.** Needle pressure of 1 oz. assures less record wear. Permanent sapphire stylus. Audio response, flat within  $\pm 2.5$  db from 50-6000 CPS. Has slight rise to 10,000 CPS. For 10" 12" records. Taupe finish. **65-001. \$26.46**



## NEEDLE CUPS

**Fig. A.** Unbreakable needle cup of brown plastic. Plus 1 1/4" hole, 7/8" deep. Wt., 6 oz. **46-800. NET. \$5c**

**12 For. \$48c**

**Fig. B.** Needle cups with hinge cover. Depth, 3/8", 1 1/4" hole. **46-801. NET. \$8c**

**12 For. \$77c**

**Fig. C.** Kit of 18 Stylus Set Screws. Assorted for pickup arms, recording heads. 3 oz. **69-935. NET. \$79c**

## RCA JUNIOR

Crystal pickup. Range: 70-7000 cycles. Output, 1.5 V. Needle pressure 2.7 oz. 10" and 12" records. Brown finish. 1 1/2 lbs. **65-250. NET. \$2.91**

## RCA REPLACEMENT CARTRIDGES

**65-267.** For RCA 9911... **\$2.50**

**65-266.** For RCA 9888... **2.20**

**65-265.** For RCA 9891... **2.20**

For Additional Phonograph Accessories See Pages 84-85.



## QUALITY PHONOMOTORS



### GENERAL INDUSTRIES PHONO MOTORS

#### HEAVY-DUTY BLUE FLYER

Model E. Heavy-Duty 78 RPM induction-type motor for recording and playback. Has weighted 12" turntable. Speed controlled by lever-type regulator. 7 1/4" L. x 3 1/4" W. x 4 1/4" D. below plate. For 110 volts, 60 cycles. Wt. 15 lbs. **\$15.45 NET**  
**85-225. NET \$15.45**  
 85-226. Same as above, but with standard 12" turntable. **\$12.90 NET**

#### MODEL LX RIM-DRIVE

A splendid value in a compact, dependable 78 RPM rim-drive, self-starting, induction motor. 8" turntable. Motor insulated for quiet operation. Will not overheat. Drive pulley, idler, and turntable mounted in one plane for perfect alignment. 2" deep below mounting plate. For 110 volts, 60 cycle operation. Shpg. wt. 5 lbs. **\$3.33 NET**  
**85-265. NET \$3.33**

#### RM4 RECORDING MOTOR

Rim-drive heavy-duty motor with 10" weighted turntable. Excellent for recording or constant-speed playback. Self-starting, dynamically balanced motor is rubber insulated. Oil-lubricated bearings throughout. Depth below plate, 2 1/4". With mounting plate and hardware. For 110 volts, 60 cycles. Shpg. wt. 15 lbs. **\$7.38 NET**  
**85-270. NET \$7.38**

### KNIGHT RIM-DRIVE MOTOR

Here's an ALLIED leader we are proud to offer. Sturdy rim-drive motor at a price so sensationally low that it is the most outstanding value anywhere. Suitable for all types of compact record-playing equipment. The 9" turntable is rim-driven at 78 RPM by a constant-speed self-starting motor. Substantially uniform speed is maintained even with variations in record drag or line voltage. Motor is shock-mounted to prevent vibration reaching turntable; insures quiet operation. Size: 4 1/4" L. x 4 1/4" W. x 2 3/4" D. below plate. For 110 volts, 60 cycles. Wt. 7 lbs. **\$2.75 NET**  
**85-400. NET \$2.75**

### TURNTABLES ONLY

For use with all Green Flyer and Blue Flyer motors. Average shpg. wt. 4 lbs.

**85-230. 10" turntable. \$1.05 NET**  
**85-231. 12" turntable. \$1.50 NET**  
**85-232. 12" weighted turntable. Sturdy, well-made and accurately balanced. \$4.05 NET**  
**69-500. Automatic Stop. For use with all G. I. Turntables. \$1.08 NET**  
**69-501. Automatic Stop. For 8", 9" or 10" turntables. \$1.72 NET**

### STROBOSCOPE

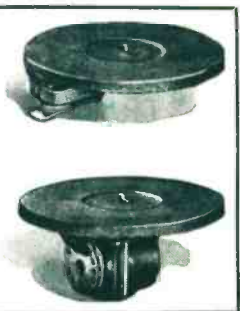
Checks 78 and 33 1/3 RPM speed. Essential for best recording and play-back results. 6" in dia. Use under neon or incandescent light on 60 cycles. Wt. 6 oz. **\$7.00 NET**  
**69-510. NET \$7.00**

### FAMOUS ALLIANCE MOTORS

**MODEL 80 RIM DRIVE MOTOR.** A dependable self-starting 78 RPM friction-drive motor suitable for most record playing needs. Sturdy motor with oversize bearings has forced ventilation and excellent regulation for uniform speed. Motor and idler-wheel plate are rubber-cushioned for quiet operation. With 8" turntable. Size: 4 1/4" L. x 3 1/4" W. x 3 1/4" D. below plate. For 110 volts, 60 cycles. Wt. 5 1/2 lbs. **\$3.23 NET**  
**85-410. NET \$3.23**

**85-415. Model 80, for 110 volts, 50 cycles. NET \$3.88**  
**85-416. Model 80, for 220 volts, 60 cycles. NET \$3.88**  
**85-417. Model 80, for 220 volts, 50 cycles. NET \$3.88**

**MODEL 60 GEAR DRIVE MOTOR.** Self-starting, constant-speed 78 RPM motor for dependable performance. Laminated-bakelite gears helically cut for quiet operation; enclosed for protection. Large bearings and forced ventilation prevent overheating. Size: 4 1/4" L. x 3 1/4" W. x 3 1/4" D. below plate. Has 9" turntable. For 110 V. 60 cy. Wt. 5 1/2 lbs. **\$5.50 NET**  
**85-420. NET \$5.50**  
**85-421. Model 60, with 10" turntable. NET \$5.82**



### SPEAKER BAFFLES AND CASES

#### DELUXE WOOD BAFFLES

Finished in hardwood walnut veneer. Grille is protected by reinforcing bars. Size: 16 1/2" high, 14 1/4" wide, 6 1/4" deep at base. 8 1/4" deep at top. Wt. 10 lbs.  
**93-500. For 12" speakers. NET \$4.65**  
**93-501. For 8" speakers. 12" x 10 1/4" x 5 1/2" deep. NET \$2.75**  
**45-845. Baffle mounting kit. Consists of two screw eyes and two special wall hooks. Wt. 1 lb. NET \$1.50**

#### DELUXE FABRIKOID

Well designed baffles finished in attractive tan fabrikkoid covering. Sturdily built of selected plywood to prevent rattle. Attractive black and gold grille cloth. Wt. 8 lbs.  
**93-510. For 12-inch spkrs. 12" H. 14 1/4" W. x 9" D. NET \$3.25**  
**93-511. For 10" spkrs. 14" high x 12" wide x 7" deep. NET \$2.70**  
**93-512. For 8" spkrs. 11" high x 9 1/2" wide x 6" deep. NET \$2.10**

#### STANDARD FABRIKOID

Excellent for all indoor installations: paging systems, school rooms, stores, offices, auditoriums, etc. Wall mounting type. Provides coverage over greatest area. Built of strong plywood covered with durable dark brown leatherette. Rigid construction throughout. Average shpg. wt. 6 lbs.  
**93-520. For 12" spkrs. 17" high x 1 1/4" wide x 8" deep. NET \$2.15**  
**93-521. For 10" spkrs. 14" x 12" x 7". NET \$1.95**  
**93-522. For 8" spkrs. 11" x 9 1/2" x 6". NET \$1.70**  
**93-523. For 6" spkrs. 9" x 8" x 5". NET \$1.49**

#### SINGLE SPEAKER CASES

Of heavy plywood. Removable back. Rubber feet. Handsomely covered, well built. Wt. 9 lbs.  
**93-601. For 12" speaker. 12 1/4" x 12 1/4" x 9 1/4" deep. Inside size. NET \$4.50**  
**93-602. For 8" speaker. 12 1/4" x 12 1/4" x 9 1/4" deep. Will also carry Knight 7-watt amplifier. NET \$4.50**  
**93-603. For 6" speaker. 12 1/4" x 12 1/4" x 9 1/4" deep. Will also carry Knight 7-watt amplifier. NET \$4.50**  
**93-604. For 4" speaker. 12 1/4" x 12 1/4" x 9 1/4" deep. Will also carry Knight 7-watt amplifier. NET \$4.50**

#### SPEAKER-AMP. CASE

For Knight 14 or 30 watt deluxe amplifiers and one or two 12-inch speakers. Heavy plywood construction; both parts serve as speaker baffles. Airplane-luggage finish. A good portable case for any P.A. system. Inside size: 21 1/4" x 18 1/4" x 14". 21 lbs. **\$8.15 NET**  
**93-603. NET \$8.15**

#### AMPLIFIER CASE ONLY

For any 42 or 43 Knight amplifier. Has compartment for microphone, cable, etc. Heavy plywood covered with airplane luggage cloth. Inside size: 21 1/4" x 16 1/4" x 10 1/4". Wt. 15 lbs. **\$7.15 NET**  
**93-604. NET \$7.15**

#### PHONOGRAPH CASES

Of sturdy plywood to withstand long, hard usage. 93-605 has storage compartment for about 15 records. Blank motor board. Handsome airplane-luggage finish with tan tweed effect. Inside size: 16 1/4" x 13 1/4" x 9 1/4". Wt. 14 lbs. **\$5.75 NET**  
**93-605. NET \$5.75**  
**93-606. As above, but accommodates two phono motors. Size: 16 1/4" x 12 1/4" x 9". Less record compartment. SHIP \$7.35 NET**  
**93-606. NET \$7.35**



## SPEAKER PROJECTORS & TRUMPETS



### KAINER ECONOMY BAFFLE

Extremely rugged, 2-piece, 12" speaker baffle spun from 20 gauge alloy-metal. Has screened breather for efficient back-pressure release. "Air-Foam" insulated. Overall length, 20". Bell diameter, 17" with 11" flare. Malleable mounting bracket is securely welded to baffle and threaded for 1/2" pipe. In baked grey enamel. Less bracket and speaker. Uses 95-207 crowfoot below. Wt., 8 lbs. **\$7.95**  
**95-210. NET.....\$1.62**  
**95-207. Adjustable crowfoot bracket. NET.....\$1.62**

### ARMORED CONE BAFFLE

All-steel projector baffle for wide-beam projection. Takes any 12" speaker. Bell, 17" dia. Overall length, 20". Grey finish. Has suspension loops. Use with 93-303 bracket (below) for wall or auto top mounting. Wt., 10 lbs. **\$7.35**  
**95-300. NET.....\$7.35**  
**81-580. Reducer ring for using 8-inch speaker in above baffle.**  
**81-581. Reducer ring for 10" speaker. EACH.....85c**  
**93-303. BAFFLE MOUNT. Bracket for above. NET..\$2.35**



### KAINER DELUXE

Extra rugged, all-steel projector baffles for any 12" speaker. Spun from 20-gauge steel. Has screened breather for proper back pressure release. "Air-Foam" insulated. Overall length, 20"; bell diameter, 17"; flare length, 11". Threaded for 1/2" pipe. Baked grey wrinkle finish. Less bracket. Shpg. wt., 8 lbs. **\$9.95**  
**95-205. NET.....\$9.95**  
**95-206. Like 95-205, but with suspension eye-rings instead of mounting fixture. 8 lbs. \$8.62**  
**95-207. Adjustable crowfoot bracket. NET.....\$1.62**

### KAINER TRUMPET

For distant sound projection. Takes 8" driver unit. Allows gradual expansion of sound-wave front, preventing disturbance from eddy currents. Bell dia., 24"; length of horn, 36". Made of heavy-gauge steel. Threaded for 1/4" pipe. Grey enamel. Less bracket. Wt., 13 lbs. **\$24.55**  
**95-220. NET.....\$24.55**  
**95-221. Trumpet as above, with Knight 15-watt driver unit. Less bracket. 18 lbs. NET.....\$29.95**  
**95-222. Adjustable crowfoot bracket. 5 lbs. NET.....\$1.94**



### JENSEN PERI-DYNAMIC

**95-030.** Popular trumpet with "Peri-Dynamic" construction. No back-radiation. Mechanical vibration and feedback minimized. Blue-grey lacquer finish. Has loops for overhead mounting. Overall length, 30". Bell opening dia., 24 1/2". With Jensen PAH-8 driver unit. Less stand. Wt., 30 lbs. **\$36.75**  
**NET.....\$36.75**  
**95-031.** Like above but with Jensen type FAB-8 unit. Less stand. Shpg. wt., 30 lbs. **\$36.75**  
**NET.....\$36.75**  
**95-032.** Adjustable cast-metal crowd stand. 5 lbs. **NET.....\$2.94**

### DRIVER UNITS

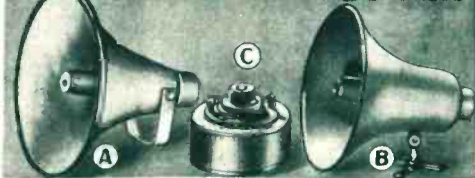
Knight 15-watt driver units especially designed for PA use.  
**81-540.** 15-watt 8" PM dynamic driver unit. 8 ohm VC. 7 lbs. **\$6.59**  
**NET.....\$6.59**  
**81-541.** 15-watt 8" electro-dynamic driver unit. 6-8 ohm VC; 1500 ohm, 12 watt field. Wt. 8 lbs. **\$4.62**  
**NET.....\$4.62**  
**64-903.** Line Transformer for either of above driver units. Wt. 1 1/2 lbs. **\$1.53**  
**NET.....\$1.53**

### UNIVERSITY BOOSTER SPEAKER

Designed for use as intercommunicator speaker in locations where noise levels are especially high. Ideal for paging systems in factories and outdoor locations. Now being used by many National Defense Plants. Will deliver higher undistorted acoustic output than ordinary cone-type speakers. 12 watts; input impedance, 8 ohms. Bell diameter, 8". Overall depth, 7". With driver unit. Shpg. wt., 4 lbs. **\$15.52**  
**81-575. Mod. 18-8. NET.....\$15.52**



## REFLEX TRUMPETS AND UNITS



### REFLEX TRUMPETS

Offer all the advantages of "straight" trumpets, but reflex design reduces length to a minimum. Produce more sound for same wattage input and project sound in a narrow beam for most efficient coverage. Rubber rims eliminate resonance. Indicates acoustic length.

### UNIVERSITY REFLEX TRUMPETS. FIG. A.

Scientifically designed exponential projectors, precision constructed to retain the correct logarithmic taper for uniform reproduction of the full frequency range. Non-resonant feature eliminates rattles. With mounting brackets, but less driver units. Permit full use of amplifier output.

| Stock No. | Type | Length* | Bell | Cut off | Wt. | NET     |
|-----------|------|---------|------|---------|-----|---------|
| 95-155    | LH   | 34"     | 25"  | 115CPS  | 12  | \$23.08 |
| 95-156    | LH   | 42"     | 21"  | 140CPS  | 9   | 14.26   |
| 95-157    | SMH  | 32"     | 14"  | 180CPS  | 5   | 10.58   |

### KAINER REFLEX TRUMPETS. FIG. B.

Weatherproof steel trumpets. Grey hammerfold finish. Length: RT-21, 19"; RT-25, 20". With mounting brackets but less driver units.

| Stock No. | Type  | Length* | Bell | Cut off | Wt. | NET     |
|-----------|-------|---------|------|---------|-----|---------|
| 95-200    | RT-21 | 48"     | 21"  | 140CPS  | 16  | \$14.90 |
| 95-201    | RT-25 | 58"     | 25"  | 115CPS  | 20  | 24.18   |

### UNIVERSITY PM DRIVER UNITS. FIG. C.

Exclusive rim-centering feature assures permanent alignment of voice coils; adds 20% to efficiency. Factory guaranteed against breakdown for one year. 15 ohm v.c. Fit University and Kainer trumpets.

| Stock No. | Type | Response    | Watts | Wt. | NET     |
|-----------|------|-------------|-------|-----|---------|
| 81-570    | MD-8 | 80-5000 CPS | 12    | 5   | \$12.94 |
| 81-571    | SAH  | 70-5000 CPS | 25    | 7   | 19.40   |
| 81-572    | PAH  | 60-5500 CPS | 25    | 10  | 31.16   |



### UTAH BI-DIRECTIONAL SPEAKERS

Completely dustproofed, bi-directional PM speakers embodying the latest in speaker design for call and paging systems in schools, factories, institutions, etc. Case resonance and response have been matched to the grey, molded, non-metallic case to give the ultimate in voice clarity. Low frequency response has been reduced to prevent voice distortion. The sturdy swivel base makes installation easy and permits speaker to be turned in any direction after mounting. Model W-800 has line transformer for connecting 1 to 8 speakers across a 250 or 500 ohm line. Model W-801 has transformer for 9 to 20 speakers. Will easily handle up to 8 watts normal, 12 watts peak. Shpg. wt., 6 1/2 lbs. **\$9.11**  
**81-051. Model W-801. NET EACH.....\$9.11**

**81-052.** Model W-810. Wall reproducer similar to those shown above except that the frequency response has been extended to reproduce the musical scale as well as voice. Case is of grey, molded, non-metallic material. Ideal as an additional speaker in the home, for computered phonographs, etc. Handles 8 watts. Voice coil 6.8 ohms. Less output transformer. Shpg. wt., 4 lbs. **NET.....\$8.08**  
**64-909.** Universal line transformer for above. **NET.....76c**  
**64-908.** Universal output transformer for above. **NET.....88c**

### SPEAKER VOLUME CONTROLS

High-Quality "L" Pads for audio input and output circuits from 8 ohms to 1,000 ohms impedance, and in 5 and 15 watt sizes.



### JENSEN "L" PADS. FIG. A

Have an "off" and "on" position with gradual, smooth control of volume. Shafts 1" long. With knob and indicator plate. Handle up to 5 watts. For 6-ohm voice coil. Shpg. wt., 1 lb. **88c**  
**33-940. Type S7276. NET.....88c**  
**Type S7411.** Above but handles 15 watts. For 8 ohm VC. Wt., 1 lb. **\$2.35**  
**33-941. NET.....\$2.35**

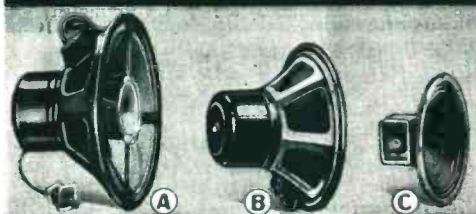
### UTAH "L" PADS. FIG. B

Heavy-duty pads to control volume in all high-level circuits. Wirewound. 15 watts. Mount in 3/8" hole. 1/4" shaft. Shpg. wt., 2 lbs.

| Type     | Stock No. | Ohms   |
|----------|-----------|--------|
| LA-8     | 33-900    | 8      |
| LA-16    | 33-901    | 16     |
| LA-600   | 33-902    | 500    |
| LA-1000  | 33-903    | 1000   |
| NET EACH |           | \$1.91 |



## FAMOUS JENSEN SPEAKERS



### TYPE "J" COAXIAL HI-FI SPEAKERS—FIG. A

A new achievement in speaker design offering true high-fidelity reproduction. Each reproducer consists actually of two PM speakers with built-in frequency-dividing network. Especially recommended for FM receivers, high-quality phono equipment, and full-range PA systems. For full frequency response, use with bass reflex cabinets below.

**82-050. JHP-52, 15" PM "Woofer"** handles frequencies from 50-5,000 CPS. 5 1/2" PM "Tweeter" handles 4,000-12,000 CPS. Range control switch lowers high-frequency response in four steps. Hand-**\$29.11**  
**82-052. JCP-46, 12-inch speaker.** Frequency response, 50 to 10,000 CPS. With cross-over network. Handles 8 to 10 watts. Impedance, 6 ohms. Ideal replacement unit where higher fidelity is desired at a moderate price. Shpg. wt., 16 lbs. **NET \$17.35**

### EXTENDED RANGE SPEAKERS—Figs. B, C

High fidelity speakers with a range to 10,000 CPS. Especially recommended for PA, home and studio use, in FM receivers, wide-range phonographs, monitoring units, etc. For best results, use with type BR bass reflex cabinets listed below in this column.

| Stock No.     | Model   | Size | Voice Coil<br>Ohms | Watts | Field<br>Res. | Watts | Lbs. | NET           |
|---------------|---------|------|--------------------|-------|---------------|-------|------|---------------|
| <b>82-070</b> | PMR-CT  | 8"   | 6                  | 5     | PM            | 8     | 4    | <b>\$7.50</b> |
| <b>82-071</b> | GR-RT   | 8"   | 6                  | 5     | 1250          | 8     | 6    | <b>6.47</b>   |
| <b>82-072</b> | G10-RT  | 10"  | 6                  | 6     | 1250          | 8     | 6    | <b>6.76</b>   |
| <b>82-073</b> | PM12-CT | 12"  | 6                  | 7     | PM            | 8     | 7    | <b>10.44</b>  |
| <b>82-074</b> | G12-RT  | 12"  | 6                  | 7     | 1250          | 8     | 7    | <b>7.35</b>   |

\*Uses No. 82-120 Model FS-10 Field Supply. Wt., 2 1/2 lbs. **NET \$2.50**

### PERMANENT MAGNET DYNAMICS—Figs. B, C

Finest quality reproducers with PM field assemblies of highly magnetized alloy; require no field voltage. Correctly balanced and aligned voice coil and cone assemblies are carefully designed to cover extremely wide frequency. Matching transformers are listed below.

| Stock No.     | Model  | Size | V.C. | Watts | Wt. Lbs. | NET           |
|---------------|--------|------|------|-------|----------|---------------|
| <b>82-020</b> | PM5FS  | 5"   | 4    | 2.5   | 1        | <b>\$2.06</b> |
| <b>82-021</b> | PM6FS  | 6"   | 4    | 3.5   | 1        | <b>2.40</b>   |
| <b>82-022</b> | PM8JS  | 8"   | 4    | 5     | 1        | <b>4.70</b>   |
| <b>82-023</b> | PM8C   | 8"   | 6    | 8     | 4        | <b>6.47</b>   |
| <b>82-024</b> | PM10GS | 10"  | 6    | 8     | 5        | <b>5.17</b>   |
| <b>82-025</b> | PM12C  | 12"  | 6    | 10    | 10       | <b>5.11</b>   |
| <b>82-026</b> | PM12GS | 12"  | 6    | 9     | 6        | <b>6.47</b>   |
| <b>82-027</b> | PM12B  | 12"  | 8    | 14    | 13       | <b>18.52</b>  |

### ADJUSTABLE MATCHING TRANSFORMERS

Permits matching of speakers to output circuit or line. Have terminals for selection of impedance. Tube types tapped at 4500, 7000, 10,000, and 14,000 ohms, all CT. Line types are tapped at 500, 1000, 1500 and 2000 ohms. For Jensen or similar speakers of other makes. Av. wt., 3 lbs.

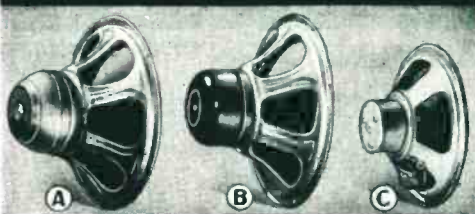
| No. Type           | For Speakers              | NET  | No. Type           | For Speakers              | NET  |
|--------------------|---------------------------|------|--------------------|---------------------------|------|
| <b>64-816 Tube</b> | PM5FS, PM6FS, PM6C \$0.35 |      | <b>64-807 Tube</b> | PM8C, PM12CT, G8RT \$2.44 |      |
| <b>64-808 Line</b> | PM6FS, HSS                |      | <b>64-808 Line</b> | G10RT, G12RT, JCP40 2.44  |      |
| <b>64-801 Tube</b> | EGRS, PM8GS               | 1.18 | <b>64-809 Tube</b> | PM10GS, G10RS             | 1.18 |
| <b>64-802 Line</b> |                           | 1.32 | <b>64-810 Line</b> |                           | 1.32 |
| <b>64-803 Tube</b> | PM8C, PM10C               | 1.82 | <b>64-811 Tube</b> | PM12B, B12Z, JHP50 2.44   |      |
| <b>64-804 Line</b> | PM12C, PM12GS             | 1.82 | <b>64-812 Line</b> | A12, B15X, PM12H 2.44     |      |
| <b>64-805 Tube</b> | CRS, G10RS                | 1.82 | <b>64-813 Tube</b> | A15PM, A15 3.82           |      |
| <b>64-806 Line</b> | PAHS, FASB                | 1.82 |                    |                           |      |

### BASS REFLEX ENCLOSURES MODEL BR

The Bass-Reflex speaker enclosure has established new standards of speaker performance. Type BK units are ideally suited for use in the home, the studio, or for general PA applications. Specifically designed for use with Jensen loudspeakers, but can also be used with other speakers if desired. Will greatly improve middle and high frequency response and add octaves in the low frequency range. Beautifully finished in rich brown lacquer. Shipped in knocked-down form and can be easily assembled. All necessary hardware included.

| Stock No.     | Type  | Speaker Size | Enclosure Size          | Lbs. | NET            |
|---------------|-------|--------------|-------------------------|------|----------------|
| <b>95-001</b> | BRB1  | 8"           | 17 1/2" x 23 1/2" x 11" | 35   | <b>\$11.11</b> |
| <b>95-002</b> | BR101 | 10"          | 21" x 27" x 12 1/2"     | 47   | <b>12.85</b>   |
| <b>95-000</b> | BR121 | 12"          | 23 1/2" x 30" x 12 1/2" | 47   | <b>15.58</b>   |
| <b>95-003</b> | BR151 | 15"          | 25" x 33" x 13 1/2"     | 60   | <b>18.23</b>   |
| <b>95-004</b> | BR181 | 18"          | 27 1/2" x 36" x 15 1/2" | 80   | <b>26.93</b>   |

## KNIGHT DYNAMIC SPEAKERS



### PERMANENT MAGNET SPEAKERS

Knigh dynamic speakers are backed by our One Year Guarantee. These splendid units are built to provide faithful reproduction of both voice and music at high volume levels. Have remarkable power handling capacity and excellent frequency response. Peak efficiency and sensitivity are achieved through the use of carefully engineered voice coil assemblies. Voice coil, 6-8 ohms. Less output transformers.

| Stock No.     | Size | Fig. | V.C. Watts | Magnet    | Lb. Wt. | NET           |
|---------------|------|------|------------|-----------|---------|---------------|
| <b>81-500</b> | 8"   | C    | 5          | 8 12 oz.  | 4       | <b>\$3.10</b> |
| <b>81-521</b> | 12"  | B    | 13         | 20 20 oz. | 6 1/2   | <b>8.47</b>   |
| <b>81-522</b> | 12"  | B    | 16         | 24 31 oz. | 8 1/4   | <b>9.33</b>   |
| <b>81-525</b> | 12"  | A    | 20         | 30 4 lbs. | 13      | <b>18.39</b>  |

### FIELD COIL DYNAMIC SPEAKERS

†For AC operation, use with field supply listed below.  
 \*Designed especially for Knight 7-watt amplifier listed on page 69.

| Stock No.     | Size | Fig. | V.C. Watts | Field         | Lb. Wt. | NET           |
|---------------|------|------|------------|---------------|---------|---------------|
| <b>81-505</b> | 8"   | C    | 5          | 8 12 1/2" 6   | 4       | <b>\$2.55</b> |
| <b>81-520</b> | 12"  | B    | 13         | 20 7.5 12000  | 6 1/2   | <b>5.10</b>   |
| <b>81-523</b> | 12"  | B    | 16         | 24 9 15000    | 8 1/4   | <b>6.25</b>   |
| <b>81-526</b> | 12"  | A    | 20         | 30 10.3 12400 | 13      | <b>9.73</b>   |

### ADJUSTABLE TRANSFORMERS

| Stock No.     | Type        | For Speaker          | Wt.    | NET           |
|---------------|-------------|----------------------|--------|---------------|
| <b>64-910</b> | Univ. Line  | 81-500 81-505 81-506 | 1 lb.  | <b>\$0.68</b> |
| <b>64-911</b> | Univ. Plate | 81-500 81-505 81-506 | 1 lb.  | <b>.88</b>    |
| <b>64-912</b> | Univ. Plate | 81-520 81-521        | 1 lb.  | <b>.96</b>    |
| <b>64-913</b> | Univ. Plate | 81-520 81-521        | 1 lb.  | <b>.96</b>    |
| <b>64-914</b> | Univ. Line  | 81-522 81-523        | 2 lbs. | <b>1.29</b>   |
| <b>64-915</b> | Univ. Plate | 81-522 81-523        | 2 lbs. | <b>1.29</b>   |
| <b>64-916</b> | Univ. Line  | 81-525 81-526        | 2 lbs. | <b>1.41</b>   |
| <b>64-917</b> | Univ. Plate | 81-525 81-526        | 2 lbs. | <b>1.41</b>   |

### KNIGHT FIELD SUPPLY FOR DYNAMIC SPEAKERS

**81-552.** Knight Universal AC Field Supply. Strap mounting type. Output, 13 watts (100 ma. at 130 V.). Fits any 8" to 12" speaker with bolt on field pot. For 110 V., 50-60 cyc. With 6 ft. cord and plug, and 3525GT tube. Wt., 3 lbs. **NET \$2.85**



### UTAH DYNAMIC SPEAKERS

### PERMO-DYNAMIC SPEAKERS

The last word in PM design. Highly sensitive and efficient. VC, 8 ohms; 6-8 ohms for models marked \*. Less transformers. (See below.)

| Stock No.     | Model | Size | Watts | Magnet | Wt.         | NET           |
|---------------|-------|------|-------|--------|-------------|---------------|
| <b>81-000</b> | *G8P  | 8"   | 10    | 20 oz. | 4 1/2 lbs.  | <b>\$6.91</b> |
| <b>81-001</b> | *H8P  | 8"   | 12    | 31 oz. | 6 1/2 lbs.  | <b>8.57</b>   |
| <b>81-010</b> | *E12P | 12"  | 13    | 20 oz. | 6 1/2 lbs.  | <b>9.41</b>   |
| <b>81-011</b> | F12P  | 12"  | 16    | 31 oz. | 8 1/2 lbs.  | <b>10.14</b>  |
| <b>81-012</b> | G12P  | 12"  | 17    | 46 oz. | 9 1/2 lbs.  | <b>11.26</b>  |
| <b>81-013</b> | CS12P | 12"  | 20    | 64 oz. | 12 1/2 lbs. | <b>20.43</b>  |

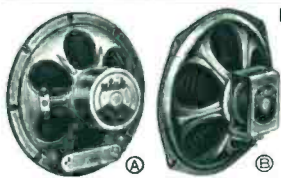
### ADJUSTABLE TRANSFORMERS

Universal plate and line transformers for Utah speakers. Line type are tapped at 500-1000-1500-2000 ohms; output type 2000-25,000 ohms.

| Stock No.     | Type   | For Speakers         | Shp. Wt.   | NET           |
|---------------|--------|----------------------|------------|---------------|
| <b>64-900</b> | Line   | G8P, E12P, FP series | 1 lb.      | <b>\$1.18</b> |
| <b>64-901</b> | Output | G8P, E12P, FP series | 1 1/2 lbs. | <b>1.53</b>   |
| <b>64-902</b> | Line   | H8P                  | 1 1/2 lbs. | <b>1.53</b>   |
| <b>64-903</b> | Output | H8P                  | 1 1/2 lbs. | <b>1.53</b>   |
| <b>64-904</b> | Line   | F12P, G12P           | 1 1/2 lbs. | <b>1.53</b>   |
| <b>64-905</b> | Output | F12P, G12P           | 2 1/2 lbs. | <b>1.53</b>   |
| <b>64-906</b> | Line   | GS12P                | 2 1/2 lbs. | <b>1.85</b>   |
| <b>64-907</b> | Output | GS12P                | 2 1/2 lbs. | <b>1.85</b>   |

**PRIORITIES:** Because of W.P.B. limiting orders on essential war materials such as copper, steel and molybdenum, we may not be able to supply P.A. speakers without priorities. We, therefore, urge extension of highest priority ratings with your orders.

# MAGNETIC & DYNAMIC SPEAKERS



## UTAH SPEAKERS

Only the finest of materials and skilled workmanship go into the manufacture of Utah PM and Field Coil speakers. Each component part is carefully inspected and tested in the Utah laboratories before assembly to insure you of the very finest reproduction obtainable from every speaker, regardless of type or cost.

### PERMO-DYNAMIC SPEAKERS

**STYLE A.** The Utah Permo-Dynamic (PM) speakers listed below are especially designed for intercommunicators, portable and battery sets and PA or multiple speaker applications. Accurately engineered and sturdy built for long, dependable service. Comprehensive listing allows choosing proper speaker for any application. \*Magnet weight.

| Stock No. | Model No. | Size   | V.C. Imp. | Normal Watts | Shpg. Wt. | NET EACH |
|-----------|-----------|--------|-----------|--------------|-----------|----------|
| 81-080    | 3P        | 3 1/4" | 3.5       | 2.5          | 1 lb.     | \$2.20   |
| 81-081    | 5P        | 5"     | 3.5       | 3            | 2 lbs.    | 2.28     |
| 81-082    | 6P        | 6"     | 6-8       | 4            | 2 lbs.    | 2.38     |
| 81-083    | 8P        | 8"     | 6-8       | 7 (5 oz.)    | 3 lbs.    | 2.58     |
| 81-084    | E8P       | 8"     | 6-8       | 7 (7 oz.)    | 3 lbs.    | 2.62     |
| 81-085    | 10P       | 10"    | 6-8       | 9            | 5 lbs.    | 2.44     |
| 81-086    | 12P       | 12"    | 6-8       | 10           | 6 lbs.    | 2.61     |

### UNIVERSAL TRANSFORMERS FOR ABOVE

62-340. For 3 1/4" and 5" speaker. Wt. 1/4 lb. } NET EACH **88c**  
 62-341. For 6" and 8" speakers. Wt. 1/2 lb. }  
 62-342. For 10" and 12" speakers. Wt. 1 lb. NET **\$1.18**

### MODEL Q FIELD-COIL SPEAKERS

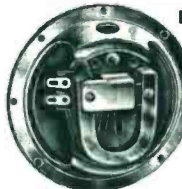
**STYLE B.** The famous Utah "Q" line of speakers represents the highest quality speaker in the low price field. Ideal for replacement purposes or for original installations. A speaker can be chosen from the listing below to match 90% of the sets now in use. Universal output transformers supplied with all speakers except 4" and 5" models (4" and 5" speaker transformers listed below. All "Q" speakers have 2 1/2 ohm V.C.

| Stock No. | Model No. | Size In Inches | Field Ohms | Shpg. Wt. Lbs. | NET EACH |
|-----------|-----------|----------------|------------|----------------|----------|
| 81-100    | Q330*     | 4              | 2750       | 2              | \$1.79   |
| 81-101    | Q345*     | 4 1/2          | 450        | 2              | 1.79     |
| 81-102    | Q306*     | 5              | 6          | 2              | 1.79     |
| 81-103    | Q330*     | 5              | 2750       | 2              | 1.79     |
| 81-104    | Q318*     | 5 1/2          | 11800      | 2              | 1.79     |
| 81-105    | Q345*     | 5 1/2          | 450        | 2              | 1.79     |
| 81-106    | Q610      | 6              | 1000       | 3              | 2.76     |
| 81-107    | Q618      | 6              | 11800      | 3              | 2.76     |
| 81-108    | Q625      | 6              | 2500       | 3              | 2.76     |
| 81-109    | Q810      | 8              | 1000       | 4              | 3.56     |
| 81-110    | Q818      | 8              | 11800      | 4              | 3.56     |
| 81-111    | Q825      | 8              | 2500       | 4              | 3.56     |
| 81-112    | Q1010     | 10             | 1000       | 4              | 4.85     |
| 81-113    | Q1020     | 10             | 2000       | 6              | 4.85     |
| 81-114    | Q1025     | 10             | 2500       | 6              | 4.85     |
| 81-115    | Q1210     | 12             | 1000       | 7              | 5.67     |
| 81-116    | Q1215     | 12             | 1500       | 7              | 5.67     |
| 81-117    | Q1220     | 12             | 2000       | 7              | 5.67     |
| 81-118    | Q1225     | 12             | 2500       | 7              | 5.67     |

\*Output transformer listed below. †Tapped at 300 ohms.

### SINGLE TUBE OUTPUT TRANSFORMERS

\*For 4" and 5" speakers, above. Also ideal as replacements on all old speakers. Built for efficient service and splendid tone. Wt., 8 oz.  
 62-320. 2000 Ohms. For 2SL6, 2SB6, 38L6, etc. } NET EACH  
 62-321. 4000 Ohms. For 6V6, 25A6, 25A7, 43, etc. }  
 62-322. 10,000 Ohms. For 6F6, 6K6, 41, 42, etc. } **62c**  
 62-323. 25,000 Ohms. For 1A5G, 1F4, 1F5G, etc. }



## KNIGHT MAGNETIC SPEAKERS

Well-designed and powerful magnetic-type speakers with rigid, pressed-steel frame and large-sized magnet. Provides excellent frequency response; rugged type. Has improved armature design. DC resistance is 1000 ohms. 6-inch speaker handles up to 1 watt output; 8 1/2 inch speaker handles up to 1 1/2 watts output without distortion. Ideal for use in battery and AC-DC sets, etc. Shpg. wt., 5", 3 lbs.; 6", 4 lbs.; 8 1/2", 5 lbs.  
 81-610. 5". NET **\$1.25**  
 81-611. 6". NET **1.40**  
 81-612. 8 1/2". NET **1.95**

### WALNUT CABINET

Solidly constructed, handsome walnut-finished wood speaker cabinet. Built for use with either 8-inch or 8 1/2-inch type speakers. Expressly designed for extension use and for all multiple speaker installations. Has beautifully carved front grille panel and attractive matching grille cloth. Supplied with felt bumper-feet which will not mar or scratch any surface. Measures: 9 3/4" x 9 3/4" x 5 1/2". Shpg. wt., 2 lbs.  
 93-700. NET **\$1.40**

## KNIGHT DYNAMICS

**Knight PM and Field Coil dynamic speakers** are accepted by servicemen everywhere for use as replacements or original equipment. Rugged construction, coupled with finest materials and skilled workmanship produce speakers of exceptional quality. Response characteristics make all Knight speakers ideal for use in all types of AC, AC-DC, and auto-radio sets, as well as for PA installations and paging systems. PM dynamics supplied less output transformers, listed separately below.

### PM DYNAMIC SPEAKERS

| Stock No. | Size   | Voice Coil | Watts | Shpg. Wt.  | EACH   |
|-----------|--------|------------|-------|------------|--------|
| 81-600    | 3 1/4" | 3-5 Ohms   | 2.5   | 1 1/2 lbs. | \$1.98 |
| 81-601    | 5"     | 3-5 Ohms   | 3     | 2 lbs.     | 2.04   |
| 81-602    | 6"     | 3-5 Ohms   | 3 1/2 | 2 1/2 lbs. | 2.40   |
| 81-603    | 8"     | 6-8 Ohms   | 4     | 3 lbs.     | 2.51   |
| 81-604    | 8"     | 6-8 Ohms   | 7     | 4 lbs.     | 3.04   |
| 81-605    | 10"    | 6-8 Ohms   | 9     | 5 lbs.     | 4.38   |
| 81-606    | 12"    | 6-8 Ohms   | 10    | 6 lbs.     | 5.35   |

### UNIVERSAL OUTPUT TRANSFORMERS FOR ABOVE

62-300. For 3 1/4", 5", 6" models; 3-5 ohm V.C. NET **65c**  
 62-301. For 6" model; 6-8 ohm voice coil. NET **72c**  
 62-302. For 8" model; 6-8 ohm voice coil. NET **76c**  
 62-303. For 10" and 12" models; 6-8 ohm V.C. NET **96c**

## KNIGHT FIELD COIL SPEAKERS

All Knight field coil dynamic speakers are equipped with universal output transformers to match single or push-pull output stages.  
 5-inch: 1/2" voice coil, 3 1/2 ohms imp. at 400 cycles, 2 1/2" deep, 4 lbs.  
 6-inch: 1/2" voice coil, 3 1/2 ohms imp. at 400 cycles, 2 1/2" deep, 4 1/2 lbs.  
 8 1/2-inch: 1/2" voice coil, 3 ohms imp. at 400 cycles, 4 1/2" deep, 7 lbs.  
 12-inch: 1/2" voice coil, 8 watts undistorted output, 6" deep, 8 lbs.

| FIELD     | 6-INCH        | 6-INCH        | 8 1/2-INCH    | 12-INCH       |
|-----------|---------------|---------------|---------------|---------------|
| 6 Volt    | 81-650        | 81-653        | 81-657        |               |
| 1000 Ohms | 81-651        | 81-654        | 81-658        | 81-661        |
| 1500 Ohms |               | 81-655        | 81-659        | 81-662        |
| 1800 Ohms |               | 81-656        | 81-660        | 81-663        |
| 2500 Ohms |               |               |               |               |
| 3000 Ohms | 81-652        |               |               |               |
| NET EACH  | <b>\$1.88</b> | <b>\$2.49</b> | <b>\$3.20</b> | <b>\$5.10</b> |

\*Tapped at 300 ohms.

## CINAUDAGRAPH SPEAKER

### 2-INCH PERMAG

**Model 22MP.** This 2 PM dynamic speaker is the latest development in compact speaker design. Can be used as speaker and microphone in small intercommunication apparatus. Voice coil impedance is 3 to 4 ohms. A special voice-coil-to-grid matching transformer is listed below. Model 22MP is ideal for installation in compact battery and battery-AC-DC portable sets; for use as combination speaker-microphone in U.H.F. equipment, etc. Shpg. wt., 1 lb.  
 81-220. Less Transformer. NET **\$1.29**

62-315. Universal Output Transformer, 1 lb. NET **73c**  
 62-317. Voice Coil-To-Grid Transformer, 1 lb. NET **73c**

## KNIGHT AC-DC DYNAMICS



### 3 1/2-INCH DYNAMIC

Particularly adaptable for replacement of old speakers to improve midrange AC-DC sets. Ruggedly built to precision standards assuring excellent frequency response. Balanced cone and voice-coil assembly will handle up to 3 1/2 watts. Voice coil impedance is 4 to 5 ohms. Face plate has four mounting holes. Supplied less output transformer; use 62-310 listed at right. Shpg. wt., 2 lbs.  
 81-681. 2750 Ohm Field.  
 81-680. 450 Ohm Field.  
 Field. NET EACH **\$1.25**



### 5-INCH DYNAMIC

A very popular replacement type 5-inch dynamic speaker. Will fill the requirements of the majority of midrange AC or AC-DC sets. Sturdy construction for long trouble-free service; will handle approximately 4 1/2 watts. Voice coil impedance 4.5 ohms. Less output transformer; use 62-310 below. Shipping weight, 3 lbs.  
 81-682. 450 Ohm Field.  
 81-683. 2750 Ohm Field. NET EACH **\$1.32**  
 62-310. Universal Output Transformer, 1 lb. NET **85c**

We can supply additional speakers of many types. For complete listings, see pages 80-81. For speaker repair parts such as Field Coils, Cones, Shims and Cement refer to page 83.



# REPLACEMENT PARTS FOR SPEAKERS

## CARRON EXACT DUPLICATE QUALITY SPEAKER CONES

Duplicate replacement cones accurately designed and carefully constructed to match the originals. One piece seamless material is used; noted for enduring and pleasing quality. An accurately wound voice coil is attached to each cone. Cones are precisely formed by patented process to secure excellent tonal quality and long life. Voice coils are also exact duplicates of the originals. For improved tone quality, replace your old speaker cone.

Approximate cost for cones not listed below: 4" to 6" cones—\$0.90; 7" to 9" cones—\$1.50; 10" to 12" cones—\$1.95; cones 13" and over—not to exceed \$2.75. Send in old cone with remittance. Name, size of speaker, numbers or letters stamped on speaker and cone will help us give you faster service. If entire speaker is sent in, for cone installation, add 75c to above prices for all but 4" to 6" cones. Add 50c for 4" to 6" cones. This service includes at no extra charge, remounting of PM's, if needed. Average ship. wt. of cones. 2 1/2 lbs.

## P.M. AND DYNAMIC SPEAKER REPAIR AND CLEANING SERVICE



Repair your old speaker and bring back its original performance. Our speaker engineers will replace entire cone with a new one-piece genuine CARRON seamless cone, eliminate dust particles and other causes of haze reception, align voice coil so it rides smoothly without rubbing and put speaker in A-1 working condition for small charges—outlined at left.

| Stock No.               | Set or Speaker No.       |
|-------------------------|--------------------------|
| <b>4" SPEAKER CONES</b> |                          |
| B2-502.                 | Belmont 510.             |
| B2-503.                 | Utah 4A100.              |
| B2-500.                 | Zenith 49AG385, 49AG403. |
| B2-501.                 | Zenith 49AG324.          |
| B2-504.                 | Zenith 49U-334.          |
| <b>ANY 4" CONE, NET</b> |                          |

**59.**

|                         |                                         |
|-------------------------|-----------------------------------------|
| <b>5" SPEAKER CONES</b> |                                         |
| B2-510.                 | Airline 62-274, -350, -351, -352, -436. |
| B2-511.                 | Airline 62-518.                         |
| B2-512.                 | Airline 62-246, 62-263.                 |
| B2-510.                 | Belmont 425, Pt. 114-108.               |
| B2-514.                 | Belmont 580, Jensen F5R.                |
| B2-512.                 | Belmont 666, 690.                       |
| B2-516.                 | Chev. 98S126 (Utah).                    |
| B2-512.                 | Chevrolet 98S200.                       |
| B2-517.                 | Chevrolet 98S425.                       |
| B2-519.                 | Chevrolet 98S583 (41045).               |
| B2-510.                 | Crowley 648, 718C.                      |
| B2-511.                 | Crowley A157, 517, 547, 5517.           |
| B2-521.                 | Crowley A366, 515 (Magnavox).           |
| B2-522.                 | Crowley 512.                            |
| B2-525.                 | Crowley 719A.                           |
| B2-511.                 | Deleu 8603.                             |
| B2-521.                 | Delco 640, 631A, 4099 (Magnavox 1D-76). |
| B2-512.                 | Delco 640, 631A (Operadio).             |
| B2-514.                 | Emerson 30, 33, 250, 321, 350LV.        |
| B2-521.                 | Emerson 107, 111.                       |
| B2-516.                 | Emerson D1, 30.                         |
| B2-527.                 | Motorola 9-29.                          |
| B2-510.                 | Zenith 49-242, 49-237, 49-238.          |
| B2-514.                 | Zenith 49-115.                          |
| <b>ANY 5" CONE, NET</b> |                                         |

**73.**

|                         |                            |
|-------------------------|----------------------------|
| <b>6" SPEAKER CONES</b> |                            |
| B2-537.                 | Bosch 505 series.          |
| B2-544.                 | Buick 980435.              |
| B2-538.                 | Cadillac C-8-56-52, 53.    |
| B2-545.                 | Jensen F6R.                |
| B2-539.                 | Jensen M6RS.               |
| B2-539.                 | Jensen PM6C, G6R.          |
| B2-536.                 | Motorola 75.               |
| B2-546.                 | Motorola 25B-6.            |
| B2-547.                 | Motorola 25642-0.          |
| B2-541.                 | Motorola 25F & 28D.        |
| B2-548.                 | Utah 6H103.                |
| B2-537.                 | Westinghouse WR209, WR211. |
| B2-535.                 | Zenith 49-81.              |
| <b>ANY 6" CONE, NET</b> |                            |

**88.**

|                         |                                  |
|-------------------------|----------------------------------|
| <b>7" SPEAKER CONES</b> |                                  |
| B2-552.                 | Motorola 6FD.                    |
| B2-550.                 | Motorola 400 Spkr. No. 50B18005. |
| B2-551.                 | Zenith 49A131.                   |
| <b>ANY 7" CONE, NET</b> |                                  |

**1.03**

|                         |                                        |
|-------------------------|----------------------------------------|
| <b>8" SPEAKER CONES</b> |                                        |
| B2-561.                 | Chevrolet 98S281.                      |
| B2-562.                 | Chevrolet 98S536.                      |
| B2-569.                 | Jensen PM6CS.                          |
| B2-570.                 | Motorola 45.                           |
| B2-568.                 | Motorola 500, 29B, 258, -59, -61, -64. |
| B2-567.                 | Stewart Warner 102A, 104A, R110.       |
| <b>ANY 8" CONE, NET</b> |                                        |

**1.18**

|                         |                      |
|-------------------------|----------------------|
| <b>9" SPEAKER CONES</b> |                      |
| B2-580.                 | Majestic G1, 71, 72. |
| B2-581.                 | Majestic G2, 91, 92. |
| <b>ANY 9" CONE, NET</b> |                      |

**1.32**

|                          |                                 |
|--------------------------|---------------------------------|
| <b>10" SPEAKER CONES</b> |                                 |
| B2-590.                  | AK15142 Mod. 55, Speaker F4.    |
| B2-591.                  | AK14374 Model 55, Speaker F2.   |
| B2-592.                  | Majestic G3, 90, 91, 93, 101-3. |
| B2-593.                  | Majestic G6-G7, 51, 52 1/2.     |
| <b>ANY 10" CONE, NET</b> |                                 |

**1.47**

| Stock No.                | Set or Speaker No.                                              |
|--------------------------|-----------------------------------------------------------------|
| <b>12" SPEAKER CONES</b> |                                                                 |
| B2-600.                  | G.E. F11, E26, E61, E68, E81, E86, E105, E115.                  |
| B2-601.                  | Grundow Spkr. 12A1, 12A2, 12A6, 12C-1, 901-2, 1101, 1291, 1541. |
| B2-602.                  | Jensen D7, D8.                                                  |
| B2-603.                  | Jensen PM12C.                                                   |
| B2-604.                  | Jensen PM12GS.                                                  |
| B2-605.                  | Majestic G13B, G13C, 315, 353.                                  |
| B2-606.                  | Oxford 12AMP, 12MS1, 12MS2.                                     |
| B2-607.                  | Rola G12.                                                       |
| B2-608.                  | Utah No. 1220, CU29.                                            |
| B2-609.                  | Utah 12PG17.                                                    |
| B2-610.                  | Utah 12PH15C.                                                   |
| <b>ANY 12" CONE, NET</b> |                                                                 |

**1.70**

| Stock No.              | Set Model or Speaker No.                                                           | Dia.   | NET   |
|------------------------|------------------------------------------------------------------------------------|--------|-------|
| <b>FOR PHILCO SETS</b> |                                                                                    |        |       |
| B2-620.                | Philco TH-4.                                                                       | 4      | 50.53 |
| B2-621.                | Philco TPA-12-25.                                                                  | 4      | 53    |
| B2-622.                | Philco AR-1.                                                                       | 4      | 53    |
| B2-630.                | Philco 39-6, 39-7.                                                                 | 5      | 59    |
| B2-631.                | Philco C32, F79.                                                                   | 5 1/2  | 59    |
| B2-632.                | Philco Pt. No. 02861.                                                              | 5 1/2  | 59    |
| B2-633.                | Philco P. t. No. 45-1344, 38-12 (121).                                             | 5 1/2  | 59    |
| B2-635.                | Philco Mod. C1608.                                                                 | 6      | 59    |
| B2-640.                | Philco 1708-F1740.                                                                 | 7      | 65    |
| B2-641.                | Philco P. t. No. 36-3159, Mod. 6, 7, 8, 9, 10, 12, 14, 15, 19, 43, 47, 71, 89, 91. | 7 1/2  | 59    |
| B2-643.                | Philco P. t. No. 36-3157, Mod. 34B, 38B, 608, 608, 84B, 260B, 267B, 625B.          | 7 1/2  | 59    |
| B2-645.                | Philco 900, 46, 20, 21, 70, 470, 490, 650.                                         | 8 1/2  | 73    |
| B2-647.                | Philco 87, 65, 95, 76, 96, 77, 45, 110, 90, 112.                                   | 10 1/2 | 82    |
| <b>FOR RCA SETS</b>    |                                                                                    |        |       |
| B2-650.                | RCA 9TX3, R24.                                                                     | 4      | 59    |
| B2-651.                | RCA Pt. No. 9023.                                                                  | 5      | 59    |
| B2-652.                | RCA Pt. No. 8987.                                                                  | 5      | 59    |
| B2-653.                | RCA Pt. No. 9428.                                                                  | 5      | 59    |
| B2-654.                | RCA Pt. No. 9428, 121, 122, 124, 126B, 241B, 310, 320, ACR136, M123, M107, 118.    | 6 1/2  | 59    |
| B2-654.                | RCA-Victor R32, RE45, series.                                                      | 9      | 1.03  |

| Stock No.                                                                                                                                                                                                                                                                                                  | Set or Speaker No. | Dia. | NET |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------|-----|
| <b>KNIGHT 6" PERMANIC SPEAKER</b>                                                                                                                                                                                                                                                                          |                    |      |     |
| Moving armature type speakers. Suitable for use in portable, battery or AC-DC sets, intercom, paging or call systems, and many similar applications. Require no field current and no output transformer. Will match any output tube with plate impedance of 10,000 to 25,000 ohms. Shipping weight, 2 lbs. |                    |      |     |
| <b>81-690, NET</b>                                                                                                                                                                                                                                                                                         |                    |      |     |
| <b>1.25</b>                                                                                                                                                                                                                                                                                                |                    |      |     |



## CENTERING SHIMS

Flexible celluloid spacers for centering and adjusting cone in pole slot of speaker. 4 shims each of the following sizes: .005; .0075; .010; .0125. In handy leather case. Ship. wt. 5 oz.

**43-105, NET 35c.**

## EXACT DUPLICATE FIELD COILS



| No.     | Set or Spkr.                       | Ohms   | NET  |
|---------|------------------------------------|--------|------|
| 61-800. | Apex 26 (1 1/4 x 2 1/8 x 1 1/2)    | 11,500 | 1.50 |
| 61-801. | Apex 8A (1 1/4 x 2 1/8 x 1 1/2)    | 6,600  | 1.50 |
| 61-802. | Philco 20.                         | 3,100  | 1.29 |
| 61-803. | Philco 86, 87, 66, 95, 76, 96, 77. | 3,200  | 2.91 |
| 61-804. | Philco 70.                         | 3,600  | 1.29 |
| 61-805. | Victor RE32, 45, 75.               | 2,950  | 3.09 |
| 61-806. | Westinghouse WR309, WR207.         | 1,900  | 1.47 |

## UNIVERSAL FIELD COILS

For AC-DC midjet 5" and 6" speakers. 1" inside dia.; 2" outside dia.; 1" high. Supplied with 3 gaskets for fitting any pole-piece.

|                    |                    |
|--------------------|--------------------|
| 61-815, 450 Ohm.   | 61-818, 2,000 Ohm. |
| 61-816, 1,000 Ohm. | 61-819, 2,500 Ohm. |
| 61-817, 1,500 Ohm. | 61-820, 3,000 Ohm. |

**NET EACH 97c.**

## FOR "TINY" SPEAKERS

Universal Field Coils for those "tiny" dynamos. 3/4" inside dia.; 1 1/4" outside dia.; 3/4" high. With gaskets and washers, at any pole piece. Ship. wt. 1 lb.

|                    |                    |
|--------------------|--------------------|
| 61-825, 450 Ohm.   | 61-828, 2,000 Ohm. |
| 61-826, 1,000 Ohm. | 61-829, 2,500 Ohm. |
| 61-827, 1,500 Ohm. | 61-830, 3,000 Ohm. |

**NET EACH 65c.**

## COILS FOR GENERAL REPLACEMENT

Service any type of speaker. Coils have 2 windings which may be connected in series or parallel to obtain the resistance values shown. Sizes: Type 1—inside dia. 1 1/4", outside dia. 2 1/2", length 1 1/4"; Type 2—inside dia. 1 1/4", outside dia. 2 1/2", length 1 1/4"; Type 3—inside dia. 1 1/4", outside dia. 2 1/2", length 2 1/4"; Type 4—inside dia. 1 1/4", outside dia. 2", length 1 1/4". With instructions. Average ship. wt. 1 1/2 lbs.

## PARALLEL RESISTANCE RANGE

| Ohms      | Type No. | Type 2 No. | Type 3 No. | Type 4 No. |
|-----------|----------|------------|------------|------------|
| 375-460   | 61-835   | 61-845     | 61-855     | 61-865     |
| 560-690   | 61-836   | 61-846     | 61-856     | 61-866     |
| 675-825   | 61-837   | 61-847     | 61-857     | 61-867     |
| 900-1190  | 61-838   | 61-848     | 61-858     | 61-868     |
| 1125-1375 | 61-839   | 61-849     | 61-859     | 61-869     |

## SERIES RESISTANCE RANGE

| Ohms      | Type No. | Type 2 No. | Type 3 No. | Type 4 No. |
|-----------|----------|------------|------------|------------|
| 1500-1800 | 61-835   | 61-845     | 61-855     | 61-865     |
| 2250-2750 | 61-836   | 61-846     | 61-856     | 61-866     |
| 2700-3300 | 61-837   | 61-847     | 61-857     | 61-867     |
| 3600-4400 | 61-838   | 61-848     | 61-858     | 61-868     |
| 4500-5500 | 61-839   | 61-849     | 61-859     | 61-869     |

**ANY COIL NET EACH \$2.03**

## SPEAKER CONE CEMENT

Cement speaker cones, paper rings and felts to speaker frames. Dries quickly; vibration-proof. 3 oz. tin. Shipping wt., 6 oz.

**43-101, NET 24c.**

## FAMOUS MUSICRAFT RECORDS IN ALBUMS

- 8-901. Unfinished Symph.** (Schubert).  
Symph. Orch. 3-12" records. NET...\$1.99
- 8-902. Symph. No. 40 in G-Minor.** (Mozart).  
3-12" records. NET...\$1.99
- 8-903. Strauss Waltzes.** 5-10" records. Blue  
Danube; Tales from Vienna Woods; Emperor  
Waltz; Sweetheart Waltz, etc. NET...\$1.99
- 8-940. Famous Piano Solos.** 4-10" records:  
Poissonade Militaire; Fur Elise; Spring Song;  
Minuet in G; Fledermaus, etc. NET...\$1.71
- 8-941. William Tell & Sorcerer's Apprentice.**  
Symph. Orch. 4-10" records. NET\$1.71
- 8-946. Masterpieces of Violin Music.** 4-10"  
records: Liebestraume; Souvenir; Spring  
Song; Trauerma. On Wings of Song, etc.  
NET...\$1.71
- 8-910. Nutcracker Suite.** (Tchaikovsky).  
Symph. Orch. 3-12" records. NET...\$1.99
- 8-942. Famous Symphonic Suites.** 4-10"  
records: Marche Militaire; Searl Dance; Span-  
ish Dance; Barcarolle; Anita's Dance, etc.  
NET...\$1.71
- 8-912. Festival of Opera.** 5-10" records:  
Vesti La Giubba; La Donna E Mobile; Ce-  
leste Aida; Salut Demeure; M'Apparti; etc.  
NET...\$1.99
- 8-913. Gems From Gilbert & Sullivan.**  
4-10" records: Mikado; Iolanthe, etc.  
NET...\$1.71
- 8-914. Mendelssohn Violin Concerto.**  
4-12" records: Violinist & Symp. Orch. NET...\$2.46
- 8-915. New World Symphony.** (Dvorak).  
5-12" records. Symp. Orch. NET...\$2.94
- 8-917. Viennese Waltzes.** 3-10" records:  
Evening Star Waltz; Valse D'Amour; Les  
Sirenes; Skater's Waltz, etc. Concert. Orch.  
NET...\$1.23
- 8-918. Ballet Music.** 4-10" records: Swan  
Lake Ballet; L'Arlesienne Suite; Pizzicati; Waltz  
from Coppelia. Symp. Orch. NET...\$1.71

- 8-943. Oliner Music.** 5-10" records: Moon-  
light Sonata; Hymn to the Sun; Prelude in  
G-Minor; Minuet; Gavotte, etc. NET...\$1.99
- 8-944. Masterpieces of Program Music.**  
4-10" records: Bolero; Minuet; La Gola-  
drina; Over the Waves; Caucasian Sketches.  
NET...\$1.71
- 8-945. Best Loved Classics.** 3-12" records:  
Hungarian Rhapsody No. 2, etc. Symp. Orch.  
NET...\$1.99
- 8-927. Great Songs.** 4-10" records: Ave  
Maria; Lullaby; Annie Laurie; I Love You;  
Love's Old Sweet Song, etc. NET...\$1.71
- 8-928. Famous Romantic Music.** 4-10"  
records: Song of India; Lion Du Bal, etc.  
NET...\$1.71
- 8-929. Famous Concert Music.** 4-10"  
records: Serenade; Melody in F; Hungar-  
ian Dance No. 5; Andante Cantabile, etc.  
NET...\$1.71
- 8-926. Scheherazade.** (Rimsky-Korsakov).  
5-12" records. Symp. Orch. NET...\$2.94
- 8-933. Symphonic Marches.** 3-10" records:  
Coronation March; Wedding March; Pilgrims'  
Chorus; Radetsky March, etc. NET...\$1.23
- 8-934. Cowboy Songs.** 4-10" records: Jessie  
James; Home on the Range, etc. NET...\$1.71
- 8-935. Carl Sandburg.** 4-10" records: Gal-  
lows Song; I'm Sad & I'm Lonely, etc. \$3.32
- 8-936. Bach.** 5-10" records: Wachet auf; Wer  
nur den Lieben Gott; Ach bleib; Kommst du  
unten, Jesu; Organ preludes, etc. NET...\$4.03
- 8-937. Negro Sinful Songs.** 5-10" records:  
Frankie & Albert; Work Songs, etc. \$4.03
- 8-938. Favorite Negro Spirituals.** 5-10"  
records: Goin' to Shout All Over; Reign, Massa  
Jesus; Little David; De Ole Ark, etc. \$4.03
- 8-939. American Folk Songs.** 2-10" records:  
Poor Wayfaring Stranger; Old Ship of Zion;  
Frog-Sourwood; Barnyard-Springfield. \$1.95
- 8-920. Cuban Rhythms.** 4-10" records:  
Bolero; Conga de los Dandy, etc. \$2.14

Complete album sets of the world's best-loved and finest music! Recorded by top-ranking artists and concert groups. All records supplied are double-faced. Average shipping wt., 4 lbs.

## RECORD ALBUM VALUES

### VALUE LEADER

Convenient protection for 10" or 12" records at unusually low cost. Durable composition binder has attractive two-tone finish. Opens flat for easy selection of desired record. Records are held in nine heavy Kraft-paper envelopes assembled permanently in binder. In assorted colors of our own selection. Wt., 2 lbs. each.

**96-888. For 10" records. NET...\$31c**  
**96-889. For 12" records. NET...\$42c**

### MUSICRAFT DELUXE ALBUMS

**Buckram round-back deluxe album.** Convenient, rugged, sturdy, with durable cloth back and breakage. This sturdy, good-looking album is substantially constructed with a wood reinforced back and heavy cloth binders. Has 12 sturdy kraft envelopes. Contains convenient index on front cover. For 10" or 12" records. Ship. wt., 3 lbs.

**96-900. Blue. For 10". \$95c**  
**96-901. Brown. For 10". \$95c**  
**96-902. Blue. 12". \$1.15**  
**96-903. Brown. 12". \$1.15**

**Library two-tone sturdily constructed album.** Reinforced with durable cloth back and breakage. Attractively stamped with gold leaf design. Has 12 kraft-paper envelopes which open flat for your convenience. Convenient index on front cover instantly locates the record you desire. For 10" or 12" records. Shipping wt., 3 lbs.

**96-905. Blue. For 10". 69c**  
**96-906. Maroon. For 10". 69c**  
**96-907. Blue. For 12". 85c**  
**96-908. Maroon. For 12". 85c**

### DELUXE SPECIAL

Our finest album! Rounded wood work covered with Dupont Fabrikoid, stamped in genuine gold leaf; sides covered in linen-crash. Has 12 kraft-paper envelopes. 4 lbs.

**For 10" Records**  
**96-869. Brown. \$1.35**  
**NET EACH.....\$1.35**

**For 12" Records**  
**96-871. Brown. \$1.49**  
**96-872. Blue. \$1.49**  
**NET EACH.....\$1.49**

### STANDARD

Keep your records safe and orderly in this economically priced album. It contains complete index for noting Title and Artist of records, permitting the instant selection of the record you may desire. Has 12 record pockets strongly bound into the attractive covers to withstand constant usage. The durable fabricoid cover is finished in rich wine color. Opens flat. 3 lbs.

**96-850. For 10" records. \$49c**  
**96-851. For 12" records. \$61c**

### TWO TONE

You will admire this new 12-pocket record album. It's an easy-operating binder that opens flat. Complete index for listing Record number, Title and Artist assures fast selection of the record you want. Sturdily constructed fabricoid binder is attractively finished in beautiful two-tone effect with rich dark-brown, gold-stamped back. 2 lbs.

**96-867. For 10" records. \$59c**  
**96-868. For 12" records. \$72c**

### CORK-GRAINED

Here is a smart, sturdy album. The solidly made binder is finished in attractive cork-grain material. Has stiff back covered with neat brown swirl cloth. Attractive gold-stamped design on back. Holds 12 records in heavy kraft envelopes well bound into the covers. Opens flat for your convenience. Has handy index. Ship. wt., 3 lbs. each.

**96-852. For 10" records. \$77c**  
**96-853. For 12" records. \$91c**

### PADDED COVER

This deluxe album was designed for the discriminating music lover who wants rich beauty as well as sturdy utility. The covers are heavily padded and full cloth bound with a durable rich brown material which has an attractive swirl design. The back is gracefully rounded and artistically gold-stamped. Holds 12 envelopes. Wt. 4 lbs. each.

**96-865. For 10" records. \$99c**  
**96-866. 12" records. \$1.19**





## MUSICRAFT RECORD ASSORTMENTS AT BARGAIN PRICES WHILE THEY LAST!

Here is a once-in-a-lifetime offering of genuine Musicroft 10" records! Recorded on both sides with a mirrored realism that faithfully reproduces every tonal register—each record is entirely brand new! Never before available at an low a price! Here is close-out entertainment of humanity's classic melodies at prices unbelievably low—the world's finest and best-loved music—recorded by famous artists and concert groups. Rich and new musical horizons unfold in the modern cultural home whose record library contains recordings of vivid, stimulating music that lives forever. Recording artists, although not mentioned by name, are top-ranking musicians, known throughout the entire music world. Each assortment contains a well-balanced group of selections which can be used as the basis of a record library collection. Recordings included are from Strauss, Gounod, Verdi, Bach, Gilbert and Sullivan, Grieg, Liszt, Beethoven, or Tchaikovsky, etc., as well as one of two children's classics such as Cinderella, The Sleeping Beauty, etc. Because of the low prices asked, no choice of titles is possible, nor can we supply a list of those available. Individual titles in each assortment are different—there are no duplications. Assortments are packed. Ready for shipment. Quantities limited.

### 10 RECORDS—20 SELECTIONS

Each assortment contains 10 Musicroft double-side 10" records, comprising 20 different selections. Offered at a greatly reduced price under original cost of individual records. Ship. wt. 6 lbs. **\$1.89**  
8-930. NET.....

### PORTABLE RECORD CASES

Airplane luggage material covering, hinged lid and chrome casing. Felt-lined for protection. Holds 25—12" records. For safely transporting records. 8 lbs. **\$1.29**  
96-890. NET.....

96-891. Same as above, but holds 25—10" records. A well-built case at a very low price. Ship. wt. 7 lbs. **\$1.15**  
NET.....

96-892. Same as above but holds 30—12" records. Heavily felt-lined for extra protection. Ship. wt. 10 lbs. **\$2.55**  
NET.....

96-893. Felt-lined case as above, but holds 50—10" records. Ship. wt. 9 lbs. **\$2.15**  
NET.....

### NEW WALCO FLOATING JEWEL NEEDLE

Complete jewel and record protection is now provided by the new Walco Type WN-75 floating jewel playback needle. Spring action resiliency and a wide-guard absorb all possible shocks; prevent the clamping of jewel or the damaging of cherished records from a dropped pickup. This economical stylus reduces surface noise and distortion to a minimum. New design minimizes record wear. Eliminates troublesome needle changing by assuring lifetime service when used with light-weight pickup. Improve your present phonograph, adding full-range reproduction with an economical floating jewel needle. Beautifully packaged for protection in a modern plastic dome case. Wt. 8 oz. **\$1.47**  
65-822. NET.....

### GENUINE SAPPHIRE PHONO NEEDLES



Fig. A. Walco WN50. Long-life bent-shank type sapphire needle. Plays over 2,000 records without wear. 2,000 needle-point reduces noise to a minimum. Shadowgraphed. Ship. wt. 2 oz. **\$73**  
65-820. NET.....

Fig. B. Walco WN55. Straight shank sapphire needle. Plays over 10,000 records in 1 sec. 2,000 2 1/2 oz. pickup. Special new design minimizes surface noise. Ship. wt. 2 oz. **\$73**  
65-821. NET.....

Fig. C. Knight genuine sapphire needles are kind to your cherished records and priced exceptionally low. They are precision-cut to provide the lowest possible surface noise and to eliminate record wear. Will play over 2,000 times without noticeable wear. Excellent for use in any automatic record changer. Provide glorious, full-bodied tone quality. Ideal replacement for use in light-weight high-fidelity pick-ups. 2 oz. **\$59**  
65-816. NET.....

### PRECIOUS METAL TIP NEEDLES



Fig. A. Pfanzstahl. Precious Osmium metal-alloy needle point offers over 4,000 plays. Ideal for automatic coin-operated machines. Accurately shaped and polished points causes long life. Wt. 2 oz. **\$1.25**  
65-910. EACH. **\$1.47**  
LOTS OF 10, EACH.....

Fig. B. Permo Fidelitons. Floating point, filters record scratch. Gives tip to 1000 plays when used with 1 oz. pickup. Wt. 2 oz. **\$50**  
65-915. NET.....

Fig. C. Knight. Preferred-quality precious Osmium-metal alloy needle. Plays over 2,000 records, or 4,000 sides. Wt. 2 oz. **\$39**  
65-920. EACH. **\$44**  
LOTS OF 10, EACH.....

Fig. D. Fidelitone Deluxe Floating-Point needle gives 5,000 plays. Precious-metal tip. Sharp construction allows freedom of action—reduces record wear. Ship. wt. 2 oz. **\$98**  
65-813.....

Fig. E. New Walco Iridium needle tipped with precious-metal alloy offers 4,000 plays. Provides high fidelity reproduction. Self-polishing feature, minimizes record wear. Wt. 2 oz. **\$1.10**  
65-823.....

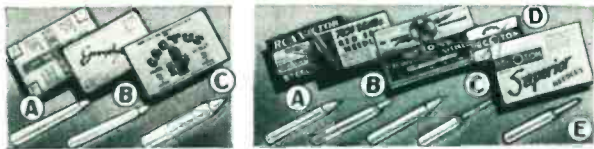


Fig. A. Kacti. Famous Peter Grey long-playing Kacti needles. Assure glorious full-bodied tone quality without annoying surface noise. Will not scratch or damage records. Shipping wt. 4 oz. **\$29**  
65-832. Pkg. of 12. NET.....

Fig. B. Greythorne. Peter Grey needles. Carefully selected and inspected thorns to give perfect record reproduction. Will not scratch. Shipping wt. 4 oz. **\$33**  
65-830. Pkg. of 15. NET.....

Fig. C. Especially designed needle made from selected cactus. Excellent quality, finely pointed. Provides minimum record wear and exceptionally fine tone. Eliminates troublesome needle scratch and surface noise. Assures you of outstanding performance. 4 oz. **\$23**  
65-831. Pkg. of 10. NET.....  
18 packages for \$2.07

### VALUES IN STEEL NEEDLES

#### Fig. A. RCA STEEL NEEDLES

65-881. Soft Tone. 65-883. Loud Tone. **\$10**  
65-882. Half Tone. 65-884. Full Tone. **75c**  
Pkg. of 100. Wt. 4 oz. NET.....  
18 Pkgs. 8 oz. NET.....  
65-885. Fig. B. RCA RED SEAL. Pkg. of 50. **15c**  
Ship. wt. 3 oz. NET.....  
65-931. Fig. C. Actone. Shadowgraphed. Highly polished. Package of 100. 6 oz. NET.....  
10 Packages for \$3.42  
65-930. Fig. D. RECOTON Automatic. Steel. **23c**  
Plays 12 to 15 records. 8 oz. Pkg. of 30.....  
65-932. Fig. E. Superior. Steel alloy. Plays 12 to 15 records. Pkg. of 12. 8 oz. **\$1.22**  
65-933. Tin of 200.....**\$1.22**

### SHARPENS KACTI NEEDLES

### PETER GREY KACTI NEEDLE SHARPENER

For use on all non-metallic needles such as cactus, thorn, bamboo, or kacti. Sharpens needles to perfectly rounded point. You can sharpen needles and use them over and over again. Saves you money. Top of box serves as brush for cleaning records. Shipping wt. 1 lb. **\$1.32**  
69-945. NET.....  
69-946. Extra Dicks for above. EACH.....**10c**  
18 FOR.....**\$90**

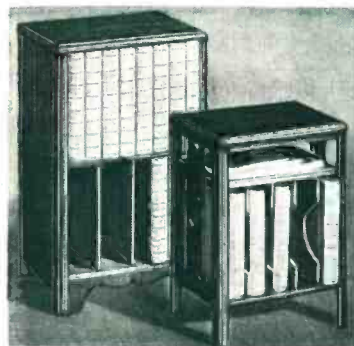
### RECORD REPEATER

Repeats 10" records automatically. Made of durable celluloid, will not injure records or needles. For use on any phonograph. Wt. 1 lb. **\$85**  
69-930.....

### RECORD ACCESSORIES

Fig. A. Record Cleaning Cloth. Specially treated felt cloth cleans and removes dust accumulations etc. from grooves of phonograph records; extends record life. A necessity for all record users. Wt. 6 x 6 in. **\$12**  
69-905. 6" x 6". NET.....  
69-906. 6" x 6". NET.....**18c**

Fig. B. Walco Recordene. Removes dirt, dust or grease from records and recordings. Leaves plastic film which reduces surface noise and prolongs record life. Has wool felt dauber. For use on any recordings except those made of ethyl cellulose. **\$26**  
69-910. NET.....



## TWO-SHELF RECORD ALBUM TABLE

Here is the perfect answer to the record-storage problem—a two-shelf table for holding record albums. Beautiful walnut finish on selected hardwood veneer top, sides and back, with solid gum-wood legs. Holds 16 full-sized 12" record albums. Has vertical separator partitions to hold albums rigid and prevent record warping. Measures 31" high; table top is 19" wide by 15" deep. Top of table may be used for record player, etc. (Less albums.) Shpg. wt., 34 lbs. **\$11.75**

## ONE-SHELF TABLE

An unusually attractive single-shelf record album table at moderate cost. With fluted gumwood corner posts, walnut veneered top surface, and attractive open grille-type side panels. Holds five full-sized 12" record albums with vertical separator partitions. 25" high, 18" wide, 14" deep. Has 3/4" storage space. (Less albums.) Shpg. wt., 25 lbs. **\$4.70**

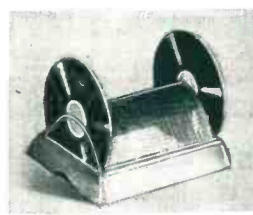
## DELUXE RECORD STORAGE CABINETS

Magnificently styled and flawlessly constructed throughout of heavy walnut veneers and fine cabinet hardwoods, this Record Album Cabinet conforms to highest standards of furniture construction. Blends harmoniously with any interior setting. Its extra large capacity of twenty-four 12" albums provides space for 288 records. Finish is beautifully hand-rubbed walnut. Has two partitions in each section. Size: 33" high; top, 28" x 16 1/2". (Less albums.) Wt., 55 lbs. **\$22.75**

The closed model in inset view has double hung doors of heavy 3/4-inch walnut veneer with genuine inlay moulding. Size and capacity same as for 98-955 above. A perfect Record Cabinet for the discriminating buyer. (Less albums.) **\$29.95**

Luxurious Record Album Table provides maximum album storage facilities. Convenient-size top has ample space for your table-type Phono-Radio sets or Record Changers. Constructed of fine walnut veneers and cabinet hardwoods. Contains space for nine 12-inch standard size albums. Has two partitions. Gracefully tapered legs of cabinet blend with any style furniture. Walnut finish. Size: 28 1/2" high; top measures 20 1/2" x 16". (Less albums.) Wt., 25 lbs. **\$10.75**

Closed commode model shown in inset view has Walnut Drop Door, providing easy access. Front routing simulates an attractive double drawer front. Album capacity and size same as above. (Less albums.) Wt., 10 lbs. **\$13.75**



## DELUXE RECORD HOLDER

Accommodates fifty records of either 10-inch or 12-inch size. Has heavy rubber-covered sturdy wire separators which prevent records from being scratched or marred. Handsomely designed wood base is attractively finished in walnut. Supplied with handy index card and stickers for filing your records. Measures 13 1/2" long, 10 1/4" wide, 5" high. An exceptional record holder value. Shpg. wt., 5 lbs. **\$2.45**

## DAVID HALL'S RECORD BOOK

Unique and authoritative guide to recorded music. Compiled by an eminent music critic. Tabulates manufacturer, catalog number, and price of selected list of 7000 records representing the world's greatest works of over three hundred composers. Offers expert impartial analysis of record performance and acoustical reproduction. Lists Symphonic, Chamber and Keyboard Music; Music for Strings, Woodwinds, Voice, etc. Contains expert commentary on composers, music records recording, and inside facts for care of phonographs, records and needles. A section on miscellaneous recordings covers folk music and music of various countries and periods. Invaluable aid in building an enjoyable record library. Mr. Hall's non-technical advice saves money that might otherwise be spent on inferior records. 386 pages. Shpg. wt., 3 lbs. **\$2.20**



## SELECTED BOOKS FOR PRE-INDUCTION TRAINING



## NEW! ELEMENTS OF RADIO A STREAMLINED BASIC RADIO COURSE

### INDIVIDUAL VOLUMES

**37-941. ELEMENTS OF RADIO (Part 1).** Fundamental principles only. No mathematics of any kind. Covers wave motion, theory of superhet receivers, direction finders, tubes, power supplies, antennas, etc. Problems and questions at the beginning of each chapter. Over 300 pages. Well illustrated. Size 6 x 9". **\$2.40**

**37-942. ELEMENTS OF RADIO (Part 2).** Radio theory and mathematics as applied to parts, circuits and measurements. Covers theory of electricity and magnetism, resonant circuits, antennas, vacuum tubes, oscillators, audio amplifiers, transmitters, cathode ray tubes, etc. Illustrated. Over 300 pages. 6x9". **\$2.40**

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**37-675. THE "RADIO" HANDBOOK.** Described on page 89. **NET. \$2.00**

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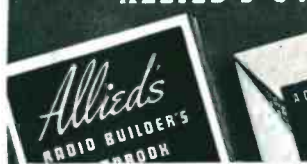
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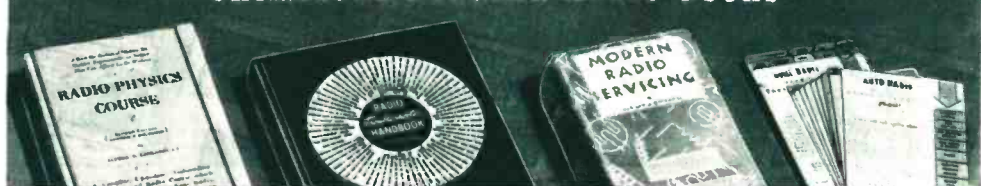
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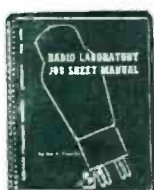
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| Stock No. | Prongs  | EACH | 10 FOR |
|-----------|---------|------|--------|
| 58-005    | 4       | 5c   | 45c    |
| 58-006    | 6       | 5c   | 45c    |
| 58-007    | 6       | 6c   | 54c    |
| 58-008    | 7S      | 6c   | 54c    |
| 58-009    | 8 Octal | 7c   | 63c    |

## LOW-LOSS UHF OCTAL SOCKETS

| No.    | Insulation                   | Mfg. Ctrs. | EACH |
|--------|------------------------------|------------|------|
| 58-151 | Mica filled Bakelite         | 1 1/2"     | 9c   |
| 58-152 | Mica filled Bakelite         | 1 1/2"     | 11c  |
| 58-153 | Insulating (Univ. Slot Mfg.) | 1 1/2"     | 19c  |

## LOW-LOSS BAKELITE OCTAL

Production-type black bakelite octal sockets. May be mounted with flanges above or below metal chassis. Above-chassis mtg. requires 1 1/2" hole; below-chassis mtg. requires 1 1/4" hole. Mfg. ctrs., 1 1/2". RMA numbered pins and 4 solder lugs for tie-joint grounding. 6 oz. 58-150. 100 FOR \$6.25. NET EACH.....7c

## HANDY SOCKET KIT

An exceptional value in a handy socket kit. Consists of 20 assorted, popular types which include 4, 5, 6, 7 and 8-prong sockets. Most are of laminated bakelite with 1 1/4" mounting centers; the balance are solid bakelite or a similar plastic and have 1 1/4" mounting plates. Shpg. wt., 1 lb. 58-130. NET.....79c

## GENERAL PURPOSE CLIPS

General purpose clips at remarkably low prices. Non-corrosive. Strong spring gives sure grip. 58-065. 1 1/2" long. Jaw spread, 1/4". 10 For 27c. EACH.....3c

58-066. 2" long. Jaw spread, 1/2". 10 For 27c. EACH.....3c

58-067. 2 1/2" long. Jaw spread, 1". 10 For 45c. EACH.....5c

58-068. 3 1/4" long. Jaw spread, 1 1/4". 10 For 54c. EACH.....6c

## H & H PRODUCTION TYPE SPST TOGGLE SWITCH

Highest quality. Underwriters Inspected. Rated 3 amperes at 250 volts. Has 6" stranded, rubber-covered leads with black cotton braid overall. 7/8" threaded shank, 1/4" long. With 2 locknuts. Oxidized black finish. 6 lbs. 34-105. NET.....22c

## HAMMERMILL 6 1/2" RECORDING DISCS

Here's an outstanding feature-special in brand-new Hammermill recording discs. These plastic 6 1/2-inch double-faced recording discs have a slightly higher surface noise than the more expensive discs, but they represent a smashing bargain for low-cost home recording and test purposes. They are constructed of a durable paper-bond base, coated on both sides to mirror-smoothness with a superior-grade uniform coating. Set cream-colored flexible Hammermill recording discs are contained in a sturdy, attractive manila envelope which has space for record titles. 1 lb. 58-017. Pkg. of 6. NET.....29c

## RECORDISC RED-LABEL VALUE

Here's a real bargain value in 6 1/2" semi-professional discs. Consist of .012 gauge aluminum base with acetate coating, an excellent recording medium which permits quality results. Underwriters Laboratory approved. Shpg. wt., each, 6 oz., pkg. of 10, 3 lbs. 58-013. EACH.....14c

10 FOR.....\$1.20

## SPECIAL VALUE IN RUBBER-COVERED HOOKUP WIRE

Here's a bargain value in finest quality hookup wire. Made of 18-gauge stranded conductor with a special live-rubber covering which strips easily. Very flexible, very durable. This splendid wire is a remarkable "buy" at our very low price. Shpg. wts., 100 foot coil, 2 lbs.; 250 foot coil, 4 lbs. 58-041. 100 foot coil. NET.....39c

58-042. 250 foot coil. NET.....85c

## ANTENNA LOOP SPECIAL

A "best buy" in a built-in loop-type antenna. Neat and compact, can very easily be installed anywhere. Measures only 9 1/4" x 7 1/4" x 1 1/4" deep. Will improve reception of many sets by minimizing interference between stations. Highly directional. Loop can be directionally tuned to position where reception is best from any particular station. Ideal for use with midgets and portables. Eliminates the need for outside aerial or ground connection. Incorporates perminox type tuned iron core assembly. With instructions. Wt., 1 1/2 lbs. 51-075. NET.....\$1.20

## 3-IN-1 RADIO TUNER



A communication 3-in-1 accessory which acts as an Antenna Tuner, A Wave Trap, or Inductor. Improves reception of any radio. Acts as a noise reducer when used with an outdoor aerial. Easily and quickly installed without tool. Complete with instructions. Shipping weight, 8 oz. 70-395. NET.....35c

## BURGESS PENLIGHT



Handy vestpocket penlight. Plastic case. Has pocket clip. Includes bulb. Less battery. Shpg. wt., 8 oz. 78-230. NET.....45c

53-031. Battery (2 required). EACH.....4c



# MISCELLANEOUS RADIO ESSENTIALS

## WALSOCO PRODUCTS

Walsoco chemicals have been specially developed for radio and electronic applications. Of finest quality, the Walsoco products listed below will aid in maintaining and preserving equipment.

### CONTACT CLEANER FLUID



A special compound for cleaning tuning condensers, volume controls, band switches and other parts of a radio where uneven surfaces may result in noisy reception. Also contains "Walsocolub B" to prevent corrosion.

**43-160.** 2 oz. bottle. **21c**  
**NET.**

**43-161.** 4 oz. bottle. **29c**

### CEMENT SOLVENT AND THINNER

A universal thinner for all radio, speaker, fabric, and similar lacquer-type cements. Acts quickly as solvent on speaker cones, voice coils, etc.

**43-162.** 2 oz. bottle. **21c**  
**Shpg. wt., 8 oz. NET.**

**43-163.** 8 oz. bottle. **Wt., 1 lb. NET. 44c**

### WALSOCOLUB B

A dependable combination cleaner and lubricant for use on switches, volume controls, tuners, variable condensers and all other electrical contacts. In 1 1/2 oz. tube. **Shpg. wt., 8 oz. 21c**

### MOTOR AND GEAR LUBRICANT

For use on phonograph motors, record changers, and any equipment requiring a grease-type lubricant. Has high lubricating quality. In 1 oz. tube. **Shpg. wt., 8 oz. 21c**

**43-125. NET.**

### SUPER POLISH

A true "super polish" for cabinets. Requires little rubbing. Cleans as it polishes, for it removes old polish, grease and dirt, then forms a hard, dry, durable finish that looks like new. In 4 oz. bottle. **Shpg. wt., 1 lb. 21c**

**43-164. NET.**

### SCRATCH REMOVING POLISH

An ingenious blend of staining and polishing ingredients. Covers scratches on cabinets, radios and furniture and at the same time applies a durable, lustrous, polished finish. Will not alter shade of original finish. In handy 4 oz. bottles. **Shpg. wt., 1 lb. 21c**

**43-165. NET.**

### ALL-PURPOSE TOOL BOX



A cleverly designed well built all-purpose Utility Chest, Service Kit, or Tackle Box with double section detachable automatic lid tray for housing tools, small parts, etc. 13 1/2" long 4 1/2" deep, 6 1/2" wide. Made of heavy gauge steel with green mar-coat enamel finish; close fitting, watertight cover. Spill-proof lock automatically latches cover when closed. Has 12 embossed rule on front edge of cover. With key. **Shpg. wt., 3 lbs. 75c**

**88-004. NET.**

### 6 VOLT DC RELAY

A low-priced, dependable 6-volt DC relay. Sturdy, well made. Current-carrying capacity of both contacts and coils is 5 amperes. Single pole, single throw type with contacts normally open. The coil is layer-wound of enamel wire. **Shpg. wt., 1 lb. 39c**

**75-750. NET.**

## VALUES IN HAND MICROPHONES

### CARBON MICROPHONES

**Fig. A.** A popular low-priced novelty hand microphone. Equipped with an on-off switch in wooden handle which allows you to break in on radio programs with your own announcements. Easy to connect. Supplied complete with cord and adapters which fit all tubes except loktal types. **Shipping weight, 2 lbs. 98c**

**59-320. NET.**

**Fig. B.** A well constructed hand-type carbon microphone for use with radio set or amplifier. Includes on-off switch mounted in handle; 10 ft. cord with prong-type adapter which fits all tubes except loktal types. **Shipping weight, 2 lbs. 1.76**

**59-321. NET.**

**Fig. C.** An excellent, compact, well-built microphone for home use. Complete with adapters and cord. Has push-button switch. Metal case mounted on pedestal with felt base; 3 3/4" high. **Adapter fits bases of all tubes except loktal types. Shpg. wt., 1 lb. 59c**

**59-325. NET.**

### DYNAMIC TYPE MICROPHONES

**Fig. A.** For home use. High output; minimum feedback. Built-in switch in handle permits cutting in on radio programs with your own announcements. Easily connected to radio set or amplifier with phone jack. With 9 ft. cord. **Shpg. wt., 3 lbs. 3.10**

**59-322. NET.**

**Fig. B. QUAM MIKE.** A good quality high-impedance dynamic type mike. Ideal for use with wireless players, radio sets, paging systems, Amateur transmitters, etc. Frequency range, 60 to 8,000 cycles; output, -50 db. With 5-foot cord and "phone tips. 3 1/2" high. **Shipping weight, 2 1/2 lbs. 2.23**

**59-310. NET.**

### TELEPHONE TYPE HANDSET

A beautifully made combination earphone and microphone handset. Has single button, 200-ohm microphone, designed especially for faithful reproduction of voice frequencies. 2,000-ohm earphone has sturdy, powerful magnet. Mike and earphone are connected in series but may be altered for use separately. **Less cord. Shpg. wt., 1 lb. 89c**

**59-480. NET. 1.75**

### "AIR PILOT" AIR CONDITION INDICATOR

A well-built, accurate instrument; shows temperature and humidity on large, clearly lettered dial. Polished ivory-finished metal case, 1 1/2" diameter. **Shpg. wt., 8 oz. 46c**

**78-201. NET.**

### ICA ALL-WAVE FILTERVOLT HEAVY-DUTY TYPE

Especially designed for eliminating interference in all-wave receivers. Particularly effective where interference is caused by appliances. Rated at 250 watts. For 32, 110 or 220 volts AC or DC. **5x4x1 1/4". Shpg. wt., 5 lbs. 4.41**

**70-370. NET.**

### STANDARD TYPE

An efficient filter to eliminate noise-interference from all types of electrical appliances. For 110 or 220 volts AC or DC. **4 1/2" x 3 1/2" x 1 1/4". Shpg. wt., 1 1/2 lbs. 2.65**

**70-371. NET.**

### 2 TERMINAL BINDING POST

Two-terminal bakelite binding post. Ideal for use in hooking up keys on code benches. Flush mounting. Wires fed through ends. **58-105. NET. 25c**

**58-105. NET.**

### ELBOW SUPPRESSOR

Elbow-type carbon suppressor. Will eliminate noise caused by ignition. Rated at 10,000 ohms. **58-660. NET. 9c**

### ICA NEUTRALIZING KITS



#### DELUXE MODEL KIT

The complete Deluxe neutralizing tool kit. Contains 21 tools, many are double-ended types—making a total of really 35, which permit alignment and adjustment of any set regardless of age or make. Fitted into compact leatherette case which folds to 10 1/2" x 4". Includes screwdriver with flexible shaft for hard-to-reach spots; "magic" alignment tool; 1/4" square nut wrench; 2 1/4" screwdriver with metal nib; 1/4" and 3/8" nut wrench; 1/4" hex metal side wrench; 2 1/4" insulated screwdriver with metal nib; 1/4" hex slotted insulated wrench; screwdriver; 3/8" hex insulated nut wrench; 7" and 7 1/2" insulated screwdrivers; and many other handy tools. **Shpg. wt., 1 lb. 42c**

**42-101. NET. 11.76**

#### STANDARD MODEL KIT

Covers almost every alignment job. 14 insulated tools telescope into each other to form only 4 units. Includes 1/4" insulated hex wrench 3/4" square nut wrench, 2 1/4" screwdriver with metal nib, alligator wrench, metal 1/4" nut wrench, plastic 3/8" nut wrench, metal-end 3/8" nut wrench, 6" screwdriver, 6" all-plastic screwdriver, 3" screwdriver, 1/4" slotted hex wrench, metal screwdriver. In vestpocket leatherette case. **Shpg. wt., 8 oz. 3.82**

**42-102. NET.**

### SPECIAL VALUES IN SOCKETS



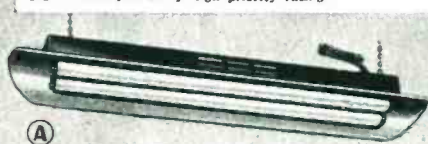
**Fig. A. ICA No. 290.** 4-prong base mounting socket made of Insulux, a high dielectric ceramic. Especially suitable for use in ultra-short wave circuits and in transmitters. Loses are at an absolute minimum. **Wt., 6 oz. 53c**

**Fig. B. Eby Acorn.** Low-loss wafer type acorn socket for triodes. Made of insulux. Has high current-carrying capacity. In silver-plated contact clips. **Shpg. wt., 1 oz. 75c**

**Fig. C. Johnson Type 267.** New miniature socket of government grade G Sialtite with glazed top and sides. Bottom in wax impregnated. Designed for use with the 9000 series and miniature type tubes, including RCA 154, 155, 174, 185 and similar types. Contacts are self-aligning, of phosphor-bronze, heavily silver-plated. Has center shield for grounding to chassis. **40-290. NET. 29c**

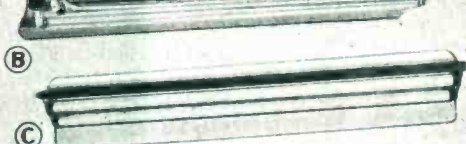
# INDUSTRIAL FLUORESCENT FIXTURES

Efficient fluorescent lighting floods working space with daylight intensity. Stops wasteful heat radiation; furnishes more and cooler light at less cost; a 40-watt fluorescent lamp provides almost as much light as the ordinary standard 100-watt incandescent bulb. **Priorities:** the three fixtures displayed here are available only on orders accompanied by high priority ratings.



**MITCHELL 2045 (A)**

A high power-factor corrected (95-99%) fixture. Rigidly constructed from "Luminate," a tough and sturdy substitute for steel. Gleaming white reflector; grey enamel outer finish. Reflector design subject to change at any time to meet WPB specifications. Overall size, 48" long, 13" wide, 1" high. Underwriters approved. Easy to install. Complete with attached brackets and 5-ft. wire mounting hooks. Completely wired. Has knockouts for ganging or mounting on ceiling. Uses two standard 40 watt T12 fluorescent lamps. For 110-125 V. 60 cyc. AC. Less lamps. Shipping wt., 23 lbs. **91-120. EACH, \$12.31. \$11.37**



**E. C. A. MODEL 1517 (B)**

A high power-factor corrected fixture with removable "Masonite" reflector. Has 75° cut-off for best lighting distribution. Reflecting surface is white. Outer finish is grey enamel. Reflector design is subject to change at any time to meet W.P.B. specifications. Complete with attached brackets and 5 ft. chains. Completely wired. Starters may be changed without removing lamps. Fixtures can be ganged. Underwriters' Lab. inspected. Overall size, 49 1/2" long, 13 1/2" wide, 6 1/2" high. Uses two 40 watt T12 lamps. For 110-125 V. 60 cyc. AC. Less lamps. Shipping weight, 25 lbs. **91-119. \$11.97**

**ECONOMY HI-POWER (C)**

Provides effective, cool, high-level general or directional lighting. Ideal wherever high-intensity illumination is a prime requirement in shops, factories, garages, etc. Sturdily constructed. Reflector surface finished in triple-coat white baked enamel. With replaceable starters and Underwriters' Approved ballasts that eliminate strobe-like flicker. High-power factor corrected, 95% or over. Uses two T-12 40-watt lamps. Overall reflector length, 50"; width, 11 1/4"; height, 6 1/2". Complete with cord and plug. Less lamps. For 110-125 volts, 60 cycles AC. Shipping weight, 32 lbs. **91-221. EACH, \$10.95. \$10.25**



**G. T. C. FLUORESCENT BALLASTS**

Compact fluorescent lamp ballasts. Easily mounted in conventional channels and fixtures. 2-lamp ballasts are popular "Long-Fellow" types. Normal power factor types are 90-95% corrected. All high power factor types are 90-100% corrected and meet power company requirements. Scientifically designed for long life, easy starting, and efficient operation. Properly treated to minimize hum vibration. For 105-125 V. 60 cycle operation. **Priorities:** ballasts for fluorescent fixtures are available only on priority of A1J or better.

\*100B2 100-watt ballast is not long-fellow type. Does not need compensator.

## 2-LAMP BALLASTS—HIGH POWER FACTOR—WITH COMPENSATOR

| Stock No. | Mfrs. Type | Lamp Watts | Size                     | Mfg. Curs.  | Fig. | Shpg. Wt. | 1-9    | 10-UP  |
|-----------|------------|------------|--------------------------|-------------|------|-----------|--------|--------|
| 78-801    | 15BCL2     | 2-15       | 1 1/2 x 2 3/4 x 1 1/4"   | 13 1/2"     | C    | 4         | \$3.41 | \$2.92 |
| 78-802    | 20BCL2     | 2-20       | 1 1/2 x 2 3/4 x 1 1/4"   | 13 1/2"     | C    | 4         | 3.41   | 2.92   |
| 78-803    | 30BCL2     | 2-30       | 1 1/2 x 2 3/4 x 2 0 1/4" | 19 1/4"     | B    | 6         | 5.16   | 4.42   |
| 78-804    | 40BCL2     | 2-40       | 1 1/2 x 2 3/4 x 1 7/8"   | 16 1/4"     | B    | 6         | 4.90   | 4.20   |
| 78-805    | 100B2      | 2-100      | 2 1/2 x 3 1/2 x 1 9/16"  | 21 x 8 5/8" | B    | 15        | 10.06  | 8.62   |

## 1-LAMP BALLAST—HIGH POWER FACTOR

|        |       |       |                        |              |   |    |        |        |
|--------|-------|-------|------------------------|--------------|---|----|--------|--------|
| 78-806 | 15BLP | 1-15  | 1 1/2 x 2 3/4 x 8 1/4" | 8 1/4"       | A | 2  | \$2.62 | \$2.25 |
| 78-807 | 20BLP | 1-20  | 1 1/2 x 2 3/4 x 8 1/4" | 8 1/4"       | A | 2  | 2.62   | 2.25   |
| 78-808 | 30BLP | 1-30  | 1 1/2 x 2 3/4 x 1 1/4" | 13 1/2"      | C | 4  | 3.72   | 3.18   |
| 78-809 | 40BLP | 1-40  | 1 1/2 x 2 3/4 x 1 1/4" | 13 1/2"      | C | 5  | 3.72   | 3.18   |
| 78-810 | 100BP | 1-100 | 2 1/2 x 3 1/2 x 3 1/4" | 21 x 13 1/4" | C | 10 | 7.00   | 6.00   |

## 1-LAMP BALLAST—NORMAL POWER FACTOR

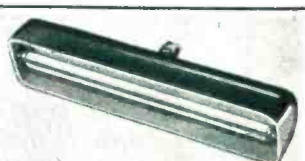
|        |     |      |                        |                |   |   |        |        |
|--------|-----|------|------------------------|----------------|---|---|--------|--------|
| 78-811 | 15B | 1-15 | 1 1/4 x 1 3/4 x 4 1/4" | 3 3/4 x 4 1/4" | D | 1 | \$0.57 | \$0.48 |
| 78-812 | 20B | 1-20 | 1 1/4 x 1 3/4 x 4 1/4" | 3 3/4 x 4 1/4" | D | 1 | .57    | .48    |
| 78-813 | 30B | 1-30 | 1 1/4 x 2 3/4 x 8 1/4" | 8 1/4"         | A | 3 | 2.10   | 1.80   |
| 78-814 | 40B | 1-40 | 1 1/4 x 2 3/4 x 8 1/4" | 8 1/4"         | A | 3 | 2.10   | 1.80   |

## G. E. TYPE "F" LAMPS

Genuine General Electric fluorescent lamps for all fluorescent fixtures. Furnish non-glaring light from entire surface with even diffusion and high illumination. Use 7 lot price for lamps when purchased with any fluorescent fixture which is listed on this page.

| Stock No. | Type  | Watts | Size | Color    | Shpg. Wt. lbs. | Each   | 7, EACH | 24, EACH |
|-----------|-------|-------|------|----------|----------------|--------|---------|----------|
| 91-520    | T 1/2 | 6     | 9"   | Daylight | 1 1/2          | \$0.90 | \$0.72  | \$0.67   |
| 91-521    | T 1/2 | 8     | 12"  | White    | 1 1/2          | .90    | .72     | .67      |
| 91-522    | T 1/2 | 8     | 12"  | Daylight | 1 1/2          | .80    | .64     | .60      |
| 91-523    | T 1/2 | 8     | 12"  | White    | 1 1/2          | .80    | .64     | .60      |
| 91-524    | T 1/2 | 14    | 15"  | Daylight | 2              | .70    | .56     | .53      |
| 91-525    | T 1/2 | 14    | 15"  | White    | 2              | .70    | .56     | .53      |
| 91-526    | T 1/2 | 15    | 18"  | Daylight | 2              | .57    | .46     | .43      |
| 91-527    | T 1/2 | 15    | 18"  | White    | 2              | .57    | .46     | .43      |
| 91-528    | T 1/2 | 20    | 24"  | Daylight | 2              | .70    | .56     | .53      |
| 91-529    | T 1/2 | 20    | 24"  | White    | 2              | .70    | .56     | .53      |
| 91-530    | T 1/2 | 30    | 36"  | Daylight | 3              | .70    | .56     | .53      |
| 91-531    | T 1/2 | 30    | 36"  | White    | 3              | .70    | .56     | .53      |
| 91-532    | T 1/2 | 40    | 48"  | Daylight | 4              | .95    | .76     | .71      |
| 91-533    | T 1/2 | 40    | 48"  | White    | 4              | .95    | .76     | .71      |
| 91-534    | T 1/2 | 100   | 60"  | Daylight | 8              | 2.15   | 1.72    | 1.61     |
| 91-535    | T 1/2 | 100   | 60"  | White    | 8              | 2.15   | 1.72    | 1.61     |

\*Mogul 2 pin base, all others have standard 2 pin bases.



## SPECIAL VALUE FLUORESCENT ADAPTER

Now—the benefits of modern fluorescent lighting at unbelievably low cost! This amazing new fluorescent lamp fixture adapts into any 105-125 volt, 60 cycle AC socket. As easy to install as a light bulb. Sturdily styled, built of one-piece pressed steel. Inside of reflector finished in white enamel, outside in metallic bronze. Uses one 18" 15-watt fluorescent lamp. Produces same as 40 watts ordinary light. Less lamp. Wt., 4 lbs. **91-150. EACH, \$2.91. \$2.75**

## STARTERS AND SOCKETS



High quality fluorescent starter-switch and socket assemblies. Average shpg. wt., 8 oz.

## STARTERS—FIG. A

| No.    | Type | Watts    | Each | 10 For |
|--------|------|----------|------|--------|
| 78-850 | F52  | 15 or 20 | 28c  | \$2.52 |
| 78-851 | F54  | 30 or 40 | 28c  | \$2.52 |
| 78-852 | F56  | 100      | 60c  | \$5.40 |

## LAMPHOLDER SOCKETS—FIG. B

| No.    | Watts            | Color | Each | 10 For |
|--------|------------------|-------|------|--------|
| 78-860 | 15, 20, 30 or 40 | Black | 16c  | \$1.44 |
| 78-861 | 30 or 40         | White | 18c  | 1.62   |
| 78-862 | 100              | White | 34c  | 3.06   |

## STARTER SOCKETS—FIG. C

For use with 78-860 and 78-861 holders above. **78-853. 10 For \$1.17. NET EACH, 13c**

## STARTER SOCKET & LAMPHOLDER—FIG. D

| No.    | Watts            | Color | Each | 10 For |
|--------|------------------|-------|------|--------|
| 78-865 | 15, 20, 30 or 40 | Black | 28c  | \$2.52 |
| 78-866 | 30 or 40         | White | 30c  | 2.70   |
| 78-867 | 100              | White | 59c  | 5.31   |

**70-400. Fluorescent Light Filter.** Designed to suppress fluorescent light noise in radio. **NET. .88c**





# HOW TO ORDER FROM ALLIED



All Local and Long Distance Phones  
**HAYmarket 6800**

## NOTICE TO CUSTOMERS

No price for any article listed or described herein exceeds the ceiling price for that article as determined under the applicable maximum price regulation issued by the Office of Price Administration. As required by that Office, we will, upon request, furnish you with a statement of our maximum prices on any of the commodities listed about which you inquire.

ALLIED RADIO CORP.

## USE OUR ORDER BLANK

To speed handling of your orders, please use our order blanks unless you have your own purchase forms. Extra order blanks are included with each shipment and will also be sent to you promptly on request.

## HOW TO SEND MONEY

It is safest to remit by postoffice or express money order, bank draft or check. Avoid sending coin or currency, but if necessary, be sure to register your letter. Because we use postage meter machines for our mailings, please do not remit in stamps except if necessary on very small orders.

## PARCEL POST SHIPMENTS

Compute postage from table at the right. Catalog listings give weights. Save C.O.D. fees by remitting enough for postage and insurance. We ship C.O.D. to cover any shortage and refund any surplus. To protect you, we insure all parcel post shipments.

### ALLOW FOR INSURANCE

|                     |     |
|---------------------|-----|
| Up to \$5.00        | 5c  |
| \$5.00 to \$25.00   | 10c |
| \$25.00 to \$50.00  | 15c |
| \$50.00 to \$100.00 | 25c |

## EXPRESS SHIPMENTS

Generators and Motors, Storage Batteries and similar bulky equipment must be shipped by express or freight. To assure safe arrival we prefer to ship all radios, sound systems, transmitting tubes, test units, and other fragile items by express. If there is no express agent at your location, be sure to specify your nearest express office. Do not include express charges with your order. Shipment will be made collect at no extra charge. Agent collects exact amount. All express shipments are insured.

## FREIGHT SHIPMENTS

If speed is not essential, freight service is cheapest on heavy shipments. Do not send shipping charges unless there is no agent at your station. Specify nearest freight station if there is no freight agent at your location.

## TRANSPORTATION ALLOWANCE

ALLIED offers a 2% transportation allowance on any cash or C. O. D. order for \$50.00 or more. This applies on shipments made anywhere in the United States on all merchandise except *Night* amplifiers and public address systems, National Company merchandise, and items marked "Postpaid." Take advantage of this saving.

## ABOUT PRICES, SUPPLY AND PRIORITIES

**PRICES.** Prices in this book supersede prices in any previous **ALLIED** catalog. Due to prevailing uncertainties, *all prices are necessarily subject to change without notice.* We must also reserve the right to add any Federal or State taxes levied after this book is printed. As always, we will give you the benefit of any price reductions. *You save at ALLIED.*

**SUPPLY.** Our stocks are exceptionally complete. **ALLIED** will continue to supply without priorities all available parts, especially for repair purposes, consistent with WPB regulations. Wherever possible we shall ship alternate units at current prices if original selections are out of stock. Continued maintenance of our stocks, of course, depends on allocation of materials to the radio industry. *All merchandise, therefore, is offered subject to prior sale.* In fairness to all our customers, also, we may find it necessary to limit the quantity of an item supplied on any one order.

**PRIORITIES.** In various sections of this catalog we have indicated what merchandise requires priorities. Supply conditions, however, may change from day to day. Therefore, *all items in this catalog are offered subject to priority requirements.* Specific priorities and delivery cannot be determined in advance. For best results place your orders with your best preference rating. If the complete order is not filled, detailed information will follow. An alert Expediting Division assures you of fast, intelligent service and the most complete shipments possible on all your orders.

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## HOW TO ESTIMATE PARCEL POST CHARGES

Packages Under 8 Ounces, Allow 1½¢ Each 2 Ounces

| WEIGHT<br>(IN<br>POUNDS) | 1st Zone<br>Up to<br>50 ml. | 2nd Zone<br>50 to<br>150 ml. | 3rd Zone<br>150 to<br>300 ml. | 4th Zone<br>300 to<br>600 ml. | 5th Zone<br>600 to<br>1000 ml. | 6th Zone<br>1000 to<br>1400 ml. | 7th Zone<br>1400 to<br>1800 ml. | 8th Zone<br>1800 ml. |
|--------------------------|-----------------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|---------------------------------|---------------------------------|----------------------|
| 1                        | 8c                          | 8c                           | 8c                            | 10c                           | 11c                            | 12c                             | 14c                             | 15c                  |
| 2                        | 10c                         | 10c                          | 11c                           | 14c                           | 17c                            | 19c                             | 22c                             | 26c                  |
| 3                        | 11c                         | 11c                          | 12c                           | 17c                           | 22c                            | 24c                             | 28c                             | 32c                  |
| 4                        | 12c                         | 12c                          | 13c                           | 18c                           | 24c                            | 26c                             | 30c                             | 36c                  |
| 5                        | 13c                         | 13c                          | 14c                           | 20c                           | 26c                            | 28c                             | 32c                             | 38c                  |
| 6                        | 14c                         | 14c                          | 15c                           | 22c                           | 28c                            | 30c                             | 34c                             | 40c                  |
| 7                        | 15c                         | 15c                          | 16c                           | 24c                           | 30c                            | 32c                             | 36c                             | 42c                  |
| 8                        | 16c                         | 16c                          | 17c                           | 26c                           | 32c                            | 34c                             | 38c                             | 44c                  |
| 9                        | 17c                         | 17c                          | 18c                           | 28c                           | 34c                            | 36c                             | 40c                             | 46c                  |
| 10                       | 18c                         | 18c                          | 19c                           | 30c                           | 36c                            | 38c                             | 42c                             | 48c                  |
| 11                       | 19c                         | 19c                          | 20c                           | 32c                           | 38c                            | 40c                             | 44c                             | 50c                  |
| 12                       | 20c                         | 21c                          | 22c                           | 34c                           | 40c                            | 42c                             | 46c                             | 52c                  |
| 13                       | 21c                         | 22c                          | 23c                           | 36c                           | 42c                            | 44c                             | 48c                             | 54c                  |
| 14                       | 22c                         | 23c                          | 24c                           | 38c                           | 44c                            | 46c                             | 50c                             | 56c                  |
| 15                       | 23c                         | 24c                          | 25c                           | 40c                           | 46c                            | 48c                             | 52c                             | 58c                  |
| 16                       | 24c                         | 25c                          | 26c                           | 42c                           | 48c                            | 50c                             | 54c                             | 60c                  |
| 17                       | 25c                         | 26c                          | 27c                           | 44c                           | 50c                            | 52c                             | 56c                             | 62c                  |
| 18                       | 26c                         | 27c                          | 28c                           | 46c                           | 52c                            | 54c                             | 58c                             | 64c                  |
| 19                       | 27c                         | 28c                          | 29c                           | 48c                           | 54c                            | 56c                             | 60c                             | 66c                  |
| 20                       | 28c                         | 29c                          | 30c                           | 50c                           | 56c                            | 58c                             | 62c                             | 68c                  |
| For Each Extra lb.       | Add 1c                      | Add 1c                       | Add 2c                        | Add 3½c                       | Add 5c                         | Add 7c                          | Add 9c                          | Add 11c              |

## HOW TO ESTIMATE EXPRESS RATES

(Note: Add 10c emergency charge to rates below for each shipment.)

| Weight Pounds    | 100     | 200     | 300     | 500     | 750     | 1000    | 1500    | Over 2000 |
|------------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 5                | \$ .25  | \$ .25  | \$ .30  | \$ .35  | \$ .35  | \$ .45  | \$ .50  | \$ .65    |
| 10               | \$ .30  | \$ .35  | \$ .40  | \$ .45  | \$ .50  | \$ .60  | \$ .70  | \$ .90    |
| 15               | \$ .35  | \$ .40  | \$ .45  | \$ .50  | \$ .55  | \$ .65  | \$ .75  | \$ .95    |
| 20               | \$ .40  | \$ .45  | \$ .50  | \$ .55  | \$ .60  | \$ .70  | \$ .80  | \$ .95    |
| 25               | \$ .45  | \$ .50  | \$ .55  | \$ .60  | \$ .65  | \$ .75  | \$ .85  | \$ .95    |
| 35               | \$ .55  | \$ .60  | \$ .65  | \$ .70  | \$ .75  | \$ .85  | \$ .95  | \$ .95    |
| 45               | \$ .65  | \$ .70  | \$ .75  | \$ .80  | \$ .85  | \$ .95  | \$ .95  | \$ .95    |
| 55               | \$ .75  | \$ .80  | \$ .85  | \$ .90  | \$ .95  | \$ .95  | \$ .95  | \$ .95    |
| 65               | \$ .85  | \$ .90  | \$ .95  | \$ .95  | \$ .95  | \$ .95  | \$ .95  | \$ .95    |
| 75               | \$ .95  | \$ .95  | \$ .95  | \$ .95  | \$ .95  | \$ .95  | \$ .95  | \$ .95    |
| 90               | \$ 1.00 | \$ 1.00 | \$ 1.00 | \$ 1.00 | \$ 1.00 | \$ 1.00 | \$ 1.00 | \$ 1.00   |
| For Each 100 Lb. | 1.60    | 2.04    | 2.42    | 3.36    | 3.96    | 5.17    | 7.32    | 9.93      |

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**ALL PHONES:**  
**HAYmarket 6800**

833 W. JACKSON BLVD.; CHICAGO 7, ILL.

Date 194

Name \_\_\_\_\_

**Street Address**

**Post Office**Shipping  
Point

## Rural Routes

Box  
No.

Postage & Fees: ☐ Collecting Post ☐ Different from Post Office

## State

**ENTER AMOUNT  
REMITTED HERE**

**Partial Post**

**Express**

**Freight**

## The Power to Lead

## Enough for Fuel and Any Excess

Reviewed

SEE OTHER SIDE FOR FULL  
'HOW TO ORDER' INFORMATION

☐ Sold in Full

100

☐ **Part Paid \$.**

(We will only accept)

**If You Send Cur  
Re Even to Rec**

### Your Letter

DO NOT USE  
THIS SPACE

## TERMS:

Our terms are cash. We ship C. O. D. on orders with deposit. (See reverse side.) All trade and cash discounts have been deducted in our catalog quotations. All prices are Chicago or factory.

**DO NOT  
USE THIS  
SPACE**

**—IMPORTANT—**  
Please see a separate sheet for all correspondence not directly connected with this order. It will speed your order and get a prompt response to your letter.

**PLEASE FILL IN**

Merchandise ordered  
From Allied  
Catalog No. \_\_\_\_\_

**ON FREIGHT OR  
EXPRESS ORDERS**

**EXPRESS ORDERS**  
If your station has an agent do not send money for shipping charges. If no agent, send money to pay the charges in advance. Charges are the same either way.

**AMOUNT FOR GOODS**

**AMOUNT FOR PARCEL POST**  
(We Refund Every Penny Not Used)  
See **AMOUNT FOR PREPARATION**  
Note **FREIGHT OR EXPRESS**

**AMOUNT DUE ALLIED**

From Previous Order

**TOTAL AMOUNT**

If currency is enclosed, be sure to send by Registered Mail.

### TRANSPORTATION ALLOWANCE

Make your order \$50.00 or more and you may deduct 2% from the total at a transportation allowance. This applies to cash or C.O.D. shipments made in the United States on all merchandise described in our catalog, except Knight Amplifiers, Public Address Equipment, National Co. products, and "Post-paid" items. (Allowance does not apply on orders for export or from U. S. Possessions.)

**IMPORTANT:** Your Signature must appear below

Limitation Order L-265, issued by the War Production Board, provides that all electronic parts may be sold for repair purposes only. Unless priorities are extended, therefore, it is essential that you sign one of the certifications at the right.

(1) Supplier's Certificate (if purchase is for resale). I hereby certify that I am entitled to purchase the items specified on the accompanying purchase order under the provisions of Limitation Order L-265, with the terms of which I am familiar.

**Signature and Date**

**(2) Consumer's Certificate (If purchase is for own use).** I hereby certify that the items specified on this order are essential for presently needed repair of electronic equipment which I own or operate and that I will, within sixty days, dispose of defective old parts of similar kind and size through salvage disposal or scrap channels or destroy such parts as have no practical value.

**Signature and Date**

# How to Order FROM ALLIED

## IT'S EASY TO ORDER

This convenient order blank makes it easy to order. Simply read the "How to Order" instructions below, write your order on the other side of this sheet, and mail it to us with your remittance.

## PARCEL POST SHIPMENTS

See the table and map immediately below for parcel post rates. If in doubt, ask your postmaster for your zone number and charges on items for which weights are shown, or write to us. Save C. O. D. charges by sending enough money to cover postage. Any surplus will be promptly refunded. If your remittance does not cover postage, shipment will be made.

C. O. D. for the balance. For your protection all our parcel post shipments are insured. Allow for insurance at the following rates:

|                     |     |
|---------------------|-----|
| Up to \$5.00        | 10c |
| \$5.00 to \$25.00   | 20c |
| \$25.00 to \$50.00  | 30c |
| \$50.00 to \$100.00 | 50c |

**BE SURE TO INCLUDE ENOUGH POSTAGE—EXCESS WILL BE REFUNDED**

## HOW TO ESTIMATE PARCEL POST RATES

(For U. S. only. Postage rate to Canada is 14c per pound.)  
Packages Under 8 Ounces, Allow 1 1/2c for Each 2 Ounces

| WEIGHT IN POUNDS | ZONES  |                           |                         |                          |                         |                          |                             |                         |
|------------------|--------|---------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-----------------------------|-------------------------|
|                  | Local  | 1st & 2nd Up to 150 MILES | Third, 151 to 300 MILES | Fourth, 301 to 450 MILES | Fifth, 451 to 600 MILES | Sixth, 601 to 1000 MILES | Seventh, 1001 to 1400 MILES | Eighth, Over 1400 MILES |
| 1                | \$0.08 | \$0.09                    | \$0.10                  | \$0.11                   | \$0.12                  | \$0.13                   | \$0.15                      | \$0.16                  |
| 2                | 09     | 11                        | 12                      | 13                       | 14                      | 15                       | 17                          | 18                      |
| 3                | 10     | 12                        | 13                      | 14                       | 15                      | 16                       | 18                          | 19                      |
| 4                | 11     | 13                        | 14                      | 15                       | 16                      | 17                       | 19                          | 20                      |
| 5                | 12     | 14                        | 15                      | 16                       | 17                      | 18                       | 20                          | 21                      |
| 6                | 13     | 15                        | 16                      | 17                       | 18                      | 19                       | 21                          | 22                      |
| 7                | 14     | 16                        | 17                      | 18                       | 19                      | 20                       | 22                          | 23                      |
| 8                | 15     | 17                        | 18                      | 19                       | 20                      | 21                       | 23                          | 24                      |
| 9                | 16     | 18                        | 19                      | 20                       | 21                      | 22                       | 24                          | 25                      |
| 10               | 17     | 19                        | 20                      | 21                       | 22                      | 23                       | 25                          | 26                      |
| 11               | 18     | 20                        | 21                      | 22                       | 23                      | 24                       | 26                          | 27                      |
| 12               | 19     | 21                        | 22                      | 23                       | 24                      | 25                       | 27                          | 28                      |
| 13               | 20     | 22                        | 23                      | 24                       | 25                      | 26                       | 28                          | 29                      |
| 14               | 21     | 23                        | 24                      | 25                       | 26                      | 27                       | 29                          | 30                      |
| 15               | 22     | 24                        | 25                      | 26                       | 27                      | 28                       | 30                          | 31                      |
| 16               | 23     | 25                        | 26                      | 27                       | 28                      | 29                       | 31                          | 32                      |
| 17               | 24     | 26                        | 27                      | 28                       | 29                      | 30                       | 32                          | 33                      |
| 18               | 25     | 27                        | 28                      | 29                       | 30                      | 31                       | 33                          | 34                      |
| 19               | 26     | 28                        | 29                      | 30                       | 31                      | 32                       | 34                          | 35                      |
| 20               | 27     | 29                        | 30                      | 31                       | 32                      | 33                       | 35                          | 36                      |
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| 23               | 30     | 32                        | 33                      | 34                       | 35                      | 36                       | 38                          | 39                      |
| 24               | 31     | 33                        | 34                      | 35                       | 36                      | 37                       | 39                          | 40                      |
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| 26               | 33     | 35                        | 36                      | 37                       | 38                      | 39                       | 41                          | 42                      |
| 27               | 34     | 36                        | 37                      | 38                       | 39                      | 40                       | 42                          | 43                      |
| 28               | 35     | 37                        | 38                      | 39                       | 40                      | 41                       | 43                          | 44                      |
| 29               | 36     | 38                        | 39                      | 40                       | 41                      | 42                       | 44                          | 45                      |
| 30               | 37     | 39                        | 40                      | 41                       | 42                      | 43                       | 45                          | 46                      |



PARCEL POST ZONE MAP

## HOW TO ESTIMATE EXPRESS CHARGES

(NOTE: Add 10c emergency charge for each shipment to rates below)

| Weight Not More Than | FOR DISTANCES OF |           |           |           |           |           |           |           |
|----------------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                      | 100 MILES        | 200 MILES | 300 MILES | 400 MILES | 500 MILES | 600 MILES | 700 MILES | 800 MILES |
| 5 Lbs.               | 25c              | 25c       | 30c       | 35c       | 35c       | 40c       | 45c       | 50c       |
| 10 Lbs.              | 30c              | 31c       | 40c       | 50c       | 50c       | 60c       | 70c       | 80c       |
| 15 Lbs.              | 35c              | 41c       | 47c       | 61c       | 70c       | 80c       | 90c       | 1.00      |
| 20 Lbs.              | 42c              | 51c       | 59c       | 78c       | 90c       | 1.00      | 1.10      | 1.20      |
| 25 Lbs.              | 50c              | 61c       | 71c       | 94c       | 1.09      | 1.20      | 1.30      | 1.40      |
| 30 Lbs.              | 58c              | 70c       | 81c       | 1.09      | 1.20      | 1.30      | 1.40      | 1.50      |
| 35 Lbs.              | 66c              | 82c       | 95c       | 1.28      | 1.49      | 1.61      | 1.73      | 1.85      |
| 40 Lbs.              | 74c              | 92c       | 1.09      | 1.42      | 1.62      | 1.75      | 1.87      | 2.00      |
| 45 Lbs.              | 82c              | 1.02      | 1.19      | 1.62      | 1.89      | 2.03      | 2.16      | 2.30      |
| 50 Lbs.              | 90c              | 1.23      | 1.44      | 1.98      | 2.28      | 2.43      | 2.57      | 2.72      |
| 55 Lbs.              | 98c              | 1.33      | 1.58      | 2.22      | 2.55      | 2.71      | 2.86      | 3.02      |
| 60 Lbs.              | 1.06             | 1.44      | 1.73      | 2.42      | 2.79      | 2.96      | 3.13      | 3.30      |
| 65 Lbs.              | 1.14             | 1.54      | 1.88      | 2.62      | 3.03      | 3.21      | 3.39      | 3.57      |
| 70 Lbs.              | 1.22             | 1.64      | 2.02      | 2.82      | 3.27      | 3.46      | 3.65      | 3.84      |
| 75 Lbs.              | 1.30             | 1.74      | 2.16      | 3.02      | 3.51      | 3.71      | 3.91      | 4.11      |
| 80 Lbs.              | 1.38             | 1.84      | 2.30      | 3.22      | 3.73      | 3.94      | 4.15      | 4.36      |
| 85 Lbs.              | 1.46             | 1.94      | 2.42      | 3.42      | 3.95      | 4.17      | 4.39      | 4.61      |
| 90 Lbs.              | 1.54             | 2.04      | 2.54      | 3.62      | 4.17      | 4.40      | 4.63      | 4.86      |
| 95 Lbs.              | 1.62             | 2.14      | 2.66      | 3.82      | 4.39      | 4.63      | 4.87      | 5.11      |
| 100 Lbs.             | 1.70             | 2.24      | 2.78      | 4.02      | 4.61      | 4.86      | 5.11      | 5.36      |

## USE OUR ORDER BLANK

Use our convenient order blank on the reverse side of this sheet. Type or print your name and address in full and specify whether shipment is to be made by Parcel Post, Express, or Freight. List the items you want—one to a line—making sure to give the correct catalog number for each item. Enter correct prices, make extensions carefully, and total your order. Make your remittance large enough to cover both the cost of the merchandise and shipping charges (unless part C. O. D. shipment is requested).

## OUR TERMS

Our terms of sale are cash with order. Catalog prices are net. F. O. B. Chicago (except where noted). All prices are necessarily subject to change without notice. (We reserve the right to add any Federal or State Taxes which may be levied after Catalog is printed.)

## POLICY ON C.O.D. ORDERS

(1) Include full remittance with mail orders of less than \$3.00. (2) Include a minimum 25% deposit on C. O. D. mail orders of \$3.00 or more. We reserve the right to deduct transportation both ways if delivery is not accepted through our fault of ours.

## FULL DISCOUNTS

In addition to all trade discounts, a FULL 3% CASH DISCOUNT HAS ALREADY BEEN DEDUCTED from every price in our Catalog. Our net catalog prices are the prices you pay. You receive full discounts even if you pay for part C. O. D. shipment. You save C. O. D. collection costs, however, by remitting in full.



## FOR SPECIAL RUSH HANDLING

Practically every order is shipped the same day it is received. Where special rush handling is required, it is advisable to send your order by Western Union or Postal Telegraph. Urgent shipments can be made on request by Air Mail (6c per ounce) or Air Express (see your express office for Air Express rates). Wire deposit with telegram order for Air Mail or Air Express shipments.

FOR ADDITIONAL INFORMATION  
SEE "HOW TO ORDER" PAGE IN OUR CATALOG

## FREIGHT SHIPMENTS

Freight shipment is especially recommended on orders where rapid delivery is not essential and merchandise selected weighs approximately 100 pounds or over. The minimum freight charge is based on shipping weight of 100 lbs. When specifying freight shipment, do not send shipping charges with your order if there is a freight agent in your locality. However, if you are on a prepaid station, please send funds to pay freight charges in advance. Any surplus in your remittance will be promptly refunded. Charges are the same whether prepaid or collect. If there is no freight station at your location, please be sure to specify your nearest shipping point. For specific information about freight charges for items in our Catalog on which weights are shown, consult your freight agent or write us.

## EXPRESS SHIPMENTS

Bulky merchandise such as generators, storage batteries, and any items which we have indicated in our Catalog as "not mailable" must be shipped by express or freight. To insure safe arrival, we prefer to ship all radios, sound systems, test units, transmitting tubes, and other precision equipment by express. If there is no express agent at your location, please be sure to specify your nearest express office. All express shipments are insured for your protection. Consult the table at right for approximate express charges (insurance charges are included for values under \$50). For more specific information about express charges, see your local Railway Express agent or write us. Express charges need not be included in your remittance. Shipment will be made collect at no extra charge. Agent collects exact charges.



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You can simplify your procurement problems and speed delivery of supplies—faster, easier at Allied. Instead of dealing with a number of supply sources, you get everything you need in Radio and Electronics at one time from this one dependable, central source. We cut red tape—you save time, effort and money.

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Keep this helpful Allied Buying Guide handy for quick reference. If you do not find listed here the items you require, let us know. Write, wire or 'phone.

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### QUOTATIONS AND PRIORITIES

We are glad to quote on any type of radio and electronic equipment, and to help with your priority problems. A capable technical staff is at your service to give you the benefit of our specialized experience. (Please enter all orders with your best priority rating. See page 95 for priority information.)

### FAST HANDLING

Our entire staff is fully geared to wartime speed and efficiency. Our Expediting Division insures fastest handling of your orders. Located in the very heart of America's transportation system and centralized in one great building, we have every facility to serve you faster and better. Send your order to ALLIED—save time.

### TESTED QUALITY

ALLIED stocks are actually a rollcall of all the foremost brand names in radio and electronics. Every item must meet our high standards of quality and is tested for performance. You are always assured of the fullest value, always certain of the finest equipment at the lowest prices. That is an established ALLIED policy.

### GUARANTEE

We guarantee that our merchandise conforms to the standards of the Radio Manufacturers' Association and will perform in the manner intended for such apparatus. Every item bought from us must satisfy in every way — or it may be returned at once for exchange, repair, or refund, as desired.

SEE  
INDEX ON  
PAGE 96

BUY

U.S. WAR BONDS

& STAMPS



# ALLIED—

## Arsenal of Supply for Everything in Radio and Electronics

### *Serving*



#### THE ARMED FORCES

Service for our Armed Forces gets the "green light" at ALLIED. A special department of technical and procurement experts devotes its entire time to serving all branches of the Armed Forces, and is prepared to supply everything in Radio and Electronics. We invite bids and advance quotations, and are prepared to give the most rapid shipment on open-market purchases. Our expeditors are constantly on the job to speed delivery.



#### RADIO TRAINING

Since the earliest days, we have served and encouraged Radio Training. Today, we are specialists in this field. Our Educational Division is currently cooperating with the leading training programs sponsored by both the Armed Forces and the nation's schools. We invite inquiries for helpful books and project diagrams, as well as for priority information on essential supplies, for general or specific curricular use.



#### WAR INDUSTRY

We are able to render especially useful service to war industries. With our large, complete stocks, we can quickly supply radio and electronic material for laboratory, maintenance, operating and production requirements. You get everything you need at one time from one central source of supply. Our alert Expediting Division speeds factory deliveries. Use ALLIED's fast, intelligent service and save time, money and effort.



#### THE HOME FRONT

War requirements have first call on radio materials. However, we are doing our utmost, consistent with wartime regulations, to continue to supply replacement parts. Send us your orders—if the equipment is at all available, ALLIED can serve you best.

When Radio sets are built again, the new KNIGHT Receivers will be finer than ever, products of advanced design and precision production . . . You will want a post-war KNIGHT Receiver.



### ALLIED DELIVERS

### THE GOODS!



# hallicrafters COMMUNICATIONS RECEIVERS

## for the Armed Forces, Radio Schools, Civilian Defense, etc.



### THE "SKY CHAMPION" S-20R

Meet the Sky Champion!—a real winner for quality performance—a blue-ribbon champion in its price class. Among its many features are: Separate Electrical Bandspread, RF and AF Gain Controls, Individual Coils for each band, Inertia Tuning Mechanism, Beat Frequency Oscillator, AVC, Tone Control, Beat Oscillator, Send-Receive Switch, Pitch Control, Automatic Noise Limiter, Phone Jack, and others. Here, too, is continuous tuning in four overlapping bands from 540 KC to 44,000 KC for dependable reception on Broadcast, Amateur, and Short-Wave bands. Nine tubes including rectifier: 3—6SK7, 6K8, 6SQ7, 6F6G, 6J5GT, 6H6, and 80—in a circuit which provides maximum gain, selectivity, and sensitivity. Speaker is built-in—there's nothing else to buy. Signal-to-noise ratio is surprisingly high. In fact, in every way, the Sky Champion is a super-efficient low-priced receiver. Has provisions for operating from "B" batteries or vibrator-type power pack (Electronic 302 converter, 80-120) and 6 V. storage battery for emergency service at locations far removed from the 110-volt AC supply lines. For 110 V. 50-60 cycles AC. Size: 18 1/2" long, 8 1/2" high, 9 1/4" deep. Finished in smooth gray enamel. Complete with tubes. Shpg. wt., 34 lbs.

**\$54.50**

97-810. NET

### THE S-29 "SKY TRAVELER"

The S-29 "Sky Traveler" provides true communication performance in a compact, easily carried portable receiver. Operates on 110 volts, AC or DC, or from self-contained batteries! Tunes 550 KC to 30.5 MC in four bands, with full electrical bandspread. Uses 1.4 volt tubes: 1T4 RF stage, 1R5 mixer, 2—1P5GT IF's, 1H5GT Detector-AVC-1st Audio, 305GT Output Amplifier, 1G4GT Beat Oscillator, 1G4GT Noise Limiter, and 50Y6GT Rectifier. Controls are: Main tuning, Bandspread, RF gain, AF gain, Bandswitch, Power switch, AVC, BFO, Noise Limiter, and Standby switch. Has built-in speaker with jack for head-phone use. Antenna input for doublet or single wire; also has self-contained collapsible antenna for portable use. Improved Noise Limiter circuit and permeability-tuned RF and IF circuits. Extremely rugged construction. Metal cabinet is finished in black crackle; size: 7" x 8 1/2" x 13 1/4". Weight, including batteries, only 18 lbs. Complete with tubes, batteries, and instructions. Shpg. wt., 23 lbs.

**\$69.50**

97-514. NET



### MODEL S-27 FM-AM RECEIVER

A 15-tube Ultra-High-Frequency receiver designed for reception of either Amplitude or Frequency-Modulated signals. Range: 28 MC to 145 MC, continuous coverage in 3 bands. Tubes: 956 RF Amplifier, 954 1st Detector, 953 Oscillator, 1852 1st IF, 1853 2nd IF, 6SK7 3rd IF, 1852 Limiter, 6H6 Frequency-modulation detector, 6H6 Amplitude-modulation detector and ANL, 6C8G Phase inverter, 2—6V6 Push-pull Audio amplifier, 6J5 Beat Oscillator, VR-150 Voltage Regulator, and 5Z3 Rectifier. Controls: Tuning, Band switch, RF gain, AF gain, Antenna trimmer, IF Selectivity, power switch BFO, BFO pitch, AVC, Noise Limiter, Tone, FM-AM, Standby switch. Features: Fly-wheel gear-driven tuning mechanism; Shock-mounted RF assembly; Plate-tuned oscillator; Air-tuned iron-core IF's, and "S" meter for accurate, easy tuning of FM signals. Speaker output, 5,000 ohms. For 110 volt, 60 cycles AC. 19" long, 9" high, 14" deep. With tubes, less speaker. Shpg. wt., 75 lbs.

**\$195.00**

97-802. NET



### ECHOPHONE EC-1 RECEIVER

Here it is! One of the finest performers ever developed in a low-priced communications type receiver. Incorporates important features which assure the kind of high-level performance you can expect from an expensive receiver. Built like a fighter-plane—sensitive, accurate, yet rugged enough to withstand rough handling. This carefully engineered 6-tube AC-DC communications receiver covers the entire tuning range from 545 KC to 30.5 MC (550 to 9.85 meters) in three bands. Main dial calibrated in MC with separate logging scale for use with electrical bandspread control. Electrical bandspread on all bands. Sturdy, gray wrinkle finished, metal cabinet with built-in FM speaker under top panel. Controls are: Main tuning, Bandspread, Volume, Standby switch, Speaker-phones switch, BFO-AVC-On-Off switch. Complete isolation for phones through phone circuit transformer. Has doublet antenna terminals; tip jacks for phones. Uses 1—12K8, 1—12SK7, 1—12SQ7, 1—12J5, 1—35L6GT tubes, and 1—25Z5 rectifier. Size: 7 1/2" high, 10 1/2" wide, 7 1/4" deep. With tubes. For 115-125 volts AC or DC. Shpg. wt., 15 lbs.

**\$24.50**

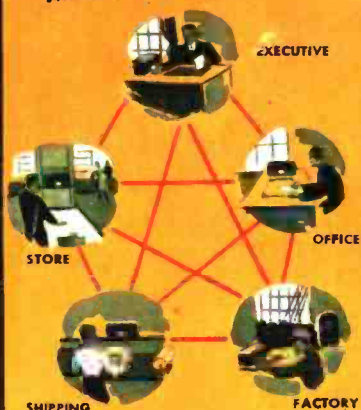
97-550. NET

For additional Communications Type receivers, please refer to pages 67 and 68.

# KNIGHT INTERCOM SYSTEMS HELP SPEED THE WAR EFFORT!



## VERSATILE SPLIT-SECOND, FINGER-TIP INTERCOMMUNICATION!



USED  
BY

- U. S. Armed Forces
- Government Agencies
- War Industries
- Schools and Colleges
- Hospitals and Prisons
- Offices and Stores
- Warehouses and Garages
- Hotels and Restaurants



## DELUXE SUPER-SELECTIVE SYSTEM

The answer to your problem of instant inter-departmental communication. Easy to install. Easy to operate. Saves valuable time. Removes traffic from your switchboard. Permits direct person-to-person communication; simply turn selector switch to station you are calling, press the button to talk, release button to listen. Will handle up to five separate two-way conversations (ten stations) without crosstalk or interference of any kind. The U. S. Armed Forces, Government Agencies, Training Schools, and Industries throughout the Nation are using **Knight Super-Selective Systems** to speed their part in our All-Out War Effort. As much as 2,000 feet of cable may be connected between stations without impairing operating efficiency. All stations are absolutely silent when not in use. Continuously variable controls permit adjustment of the 2 1/4 watts output of each individual unit from a whisper to full volume as required. Units are attractively housed in handsome walnut finished cabinets, 12" x 6" x 5 3/4". Has on-off indicator. For 110-115 volt AC or DC operation.

**95-835. Deluxe Super-Selective Unit.** With tubes, junction box, 6 foot cable, and complete installation and operating instructions. Shpg. wt., 14 lbs.

**NET EACH STATION.....\$34<sup>95</sup>**

**95-836. Same as above except includes privacy earphone.** For executives, secretaries, receptionists, etc. When earphone is used, "Talk-Listen" switch does not need to be operated since units then work the same as a telephone. Shpg. wt., 14 lbs.

**NET EACH STATION.....\$43<sup>50</sup>**

**49-603. Connecting cable (11 cond.) NET PER FOOT.....13c**

**HOW TO DETERMINE CABLE REQUIREMENTS.** Measure cable distance from first master, to second, from second to third, from third to fourth, etc. Include footage required for wiring above floor level if necessary. All orders for cable must include currently required priority extension. Our engineering staff will be glad to answer questions on installation.

SEE PAGE 74 for listings of Master-Selective and Combination Systems in Deluxe and Economy styles, for all purposes.

WE CAN SUPPLY Knight Systems covering 20, 30, 40, and 50 or more stations. Write for prices. Quotations promptly supplied.