



HAMMOND

RADIO TRANSFORMERS
TRANSMITTING EQUIPMENT



HAMMOND MANUFACTURING CO.
GUELPH ONTARIO CANADA

CATALOGUE G-48

Guarantee

All HAMMOND PRODUCTS listed herein are sold with the following guarantee: "This unit has been thoroughly inspected and tested before leaving the factory and will give carefree service when used properly. However, should any defect develop due to faulty material or construction, The Hammond Manufacturing Co., agrees to make this good either by repair or replacement, providing this unit is returned to the factory, transportation prepaid. This guarantee continues for the period of one year."

Hammond

RADIO
TRANSFORMERS
and
TRANSMITTING EQUIPMENT

C a t a l o g u e

G-48

September 1935

A 100% Canadian Company, employing
Canadian Labor, Canadian Capital, and
using Canadian Copper, Insulation, etc.

HAMMOND MANUFACTURING CO.

GUELPH · ONTARIO · CANADA

*All prices are list, and
subject to change
without notice*





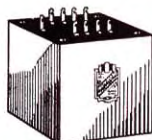
Audio Transformers



500 SERIES—While the 300 and 400 series are desirable with the more general sub-panel type of construction, there are still many installations that require a fully enclosed audio with terminal lugs. This series employs the same high standard of construction as the 400 types but has substantial terminal lugs of new design. Dimensions $2\frac{1}{2} \times 2\frac{7}{8} \times 3$ inches, mounting centres $2\frac{1}{8} \times 1\frac{3}{4}$, net weight $2\frac{1}{4}$ lbs.

502 —200 ohms C.T. to 50 ohms	\$8.00
506 —200 ohms C.T. to 200 ohms	8.00
508 —200 ohms C.T. to 500 ohms	8.00
510 —200 ohms C. T. to Grid	8.00
512 —200 ohms C.T. to P.P. Grids	8.00
514 —Velocity Mic. to 50-250-500 ohms	8.00
516 —Velocity Mic. to Grid	8.00
522 —500 ohms to 50-250-500 ohms	8.00
524 —500 ohms to Grid	8.00
526 —500 ohms to P.P. Grids	8.00
530 —30, 37, 6C5, 56, 864, to Grid	8.00
532 —30, 37, 6C5, 56, 864, to P.P. Grids	8.00
534 —P.P. 30, 37, 56, 864 to P.P. Grids	8.00
540 —56, 864, etc., to 50-250-500 ohms	8.00
542 —P.P. 56, 864, to 50-250-500 ohms	8.00

544 —31, 71A, 45, 59, etc. to 50-250-500 ohms	8.00
546 —P.P. 31, 71A, 45, 59, to 50-250-500 ohms	8.00
550 —31, 71A, 45, 59, etc. to 1-4-9 ohms	5.00
552 —P.P. 31, 71A, 45, 59 to 1-4-9 ohms	5.00
554 —33, 41, 42, 47, 2A5 to 1-4-9 ohms	5.00
556 —P.P. 33, 41, 42, 47, 2A5 to 1-4-9 ohms	5.00
560 —Single 2A3, to 4-8-15 ohms	6.00
561 —P.P. 2A3 (Auto Bias) to 4-8-15 ohms	6.00
562 —P.P. 2A3 (fixed Bias) to 4-8-15 ohms	6.00
564 —Single 250 to 4-8-15 ohms	6.00
566 —P.P. 250 to 4-8-15 ohms	6.00
570 —Plate Impedance 700 henrys 4 ma.	6.00
572 —Plate Impedance 100 henrys 10-20 ma.	6.00



600 SERIES—The new developments in high-permeability core materials make possible audio coupling units of remarkable frequency characteristics. Use of these is made in the HAMMOND 600 line of Audio Transformers and a frequency range of 30 to 15,000 cps. is attained in the following types. Sectional, machine-wound coils carefully vacuum dried and impregnated are employed. A very effective system of electrostatic and magnetic shielding is also incor-

porated in the 600 Series and connections to these are brought out to a separate terminal. Another feature is the provision for mounting with terminals above or below sub-base. Dimensions $3 \times 3 \times 15/16$ inches. Mounting centres $2\frac{1}{2} \times 2\frac{1}{2}$ inches. Weight $5\frac{1}{4}$ lbs.

603 —50-125-200-250-333-500 ohms to 50-125-250-333-500 ohms	\$20.00
615 —50-125-200-250-333-500 ohms to Grid	20.00
617 —50-125-200-250-333-500 ohms to Push-Pull Grids	20.00
630 —01A, 30, 37, 55, 56, 864, etc. to Grid (1:2)	20.00
632 —01A, 30, 37, 55, 56, 864, etc. to Push-Pull Grids (1:2 total)	20.00
634 —Push-Pull 30, 56, 76, 864, 6C5 to Push-Pull Grids	20.00
635 —24, 32, 57, 77, etc. to Push-Pull Grids	20.00
640 —01A, 30, 37, 55, 56, 864, etc. to 50-125-200-250-333-500 ohms	20.00
642 —Push-Pull 01A, 30, 56, 864, etc. to 50-125-200-250-333-500 ohms	20.00
644 —31, 71A, 45, 59, etc. to 50-125-200-250-333-500 ohms	20.00
646 —Push-Pull 31, 71A, 45, 59, etc. to 50-125-250-333-500 ohms	20.00
650 —31, 71A, 45, 59, etc. to 1-2-4-6-8-15 ohms	20.00
652 —Push-Pull 31, 71A, 45, 59 etc. to 1-2-4-6-8-15 ohms	20.00

Audio Transformers of all types can be made to your specifications.

HIGH LEVEL AUDIOS—See Page 5.

Replacement Audios



3 to 1 Audio



A full-sized straight audio with vacuum impregnated, machine-wound coils at a real price. First-class construction throughout. A total of 10,000 turns on primary and secondary. D.C. resistance

Pri. 810 ohms, secondary, 3000 ohms. Insulation to stand 1000 volts. Heavy core of new type 26 ga. audio steel having increased permeability. Full frequency response. Marked terminal leads 6" long. Mtg. centres $3\frac{3}{4}$ ", height $1\frac{7}{8}$ ", width $1\frac{5}{8}$ ", wt. 1 lb.

Type 111 Horizontal Bracket Mounting.
List Price\$1.25

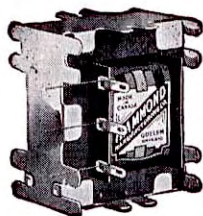
New Low-Priced Push-Pull Inputs

Vertical and horizontal mounting, $\frac{3}{4}$ x $\frac{3}{4}$ core of improved 26 ga. audio steel. Same coil as is used in our popular Type 114 Universal Replacement. Ratio $3\frac{1}{2}$ to 1, with a total of 11,450 turns. D.C. resistance, Pri. 825 ohms, Sec. 3500 ohms. Leads 6" long plainly stamped. Can be used to couple a detector using grid leak or first audio tube to single or P.P. power tubes.

Type 112 Vertical Bracket Mounting,
similar to type 116, List Price.....\$1.50

Type 113 Horizontal Bracket Mounting,
same as type 111List Price \$1.50

Universal Push-Pull or $3\frac{1}{2}$ to 1 Input



A highly popular and well-designed Audio —for coupling a detector using grid-leak or a first Audio Tube to single or P.P. 171A 245, 47's etc., 6" leads as well as soldering lugs. Dimensions $2\frac{1}{4}$ x 2 x 2, weight 1 lb., 1 oz.

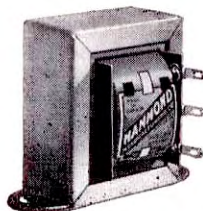
TYPE 114 \$1.80

P.P. Pentode Output

For Push-Pull 33, 42, 47, 2A5, etc.; tapped Output for 1 to 2 ohms, 3 to 4 ohms and 5 to 10 ohms. Direction sheet enclosed. Mountings, dimensions, same as type 116.

TYPE 127 \$2.25

High Impedance Push-Pull Input



A low Ratio, High Quality P.P. Input can also be used to couple a power detector into P.P. Power tubes. Full frequency range. Ratio pri. to total sec. 1:2, weight 1 lb. 3 oz. dim. 2x3 x $2\frac{1}{4}$.

TYPE 116 \$2.25

A High-Quality Audio

Balanced windings may be used as straight audio, P.P. Input or P.P. Plates to P.P. Grids. Ideal for coupling power detector into P.P. Grids, both Primary and Secondary in two sections. Ratio 1:2, 2x4x2 $\frac{5}{8}$ in. Wt. 2 $\frac{1}{4}$ lbs.

TYPE 118 \$4.00

Output Audios

Dimensions, weight and mounting same as Type 113

119 P.P. 231, 171A, 245 to Mag. \$1.80

120 Single 231, 171A, 245 to Mag. 1.80

121 Single 231, 171A, 245 to Dyn.* 1.80

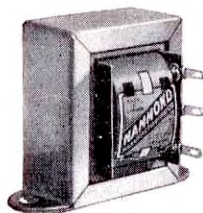
122 P.P. 231, 171A, 245, etc. to Dyn.* 1.80

123 Single 32, 42, 47, etc. to Dyn.* 1.80

124 P.P. 33, 42, 47 etc. to Dyn.* 1.80

*Voice Coil of 6 to 8 ohms.

Universal Output



Mounting dimensions, weight same as type 116. For single or P.P. 231, 171A, 245 or single 33, 42, 47, 2A5, etc. tapped output for 1 to 2 ohms, 3 to 4 ohms and 5 to 10 ohms. Direction sheet enclosed.

TYPE 126 \$2.25



Class "A" Prime Audios



**400 Type
Mounting**

The following Audio Transformers have been expressly developed for use with the new Class "A" Prime or "AB" amplifier circuits. Windings having correct impedance match and designed to give high inductive coupling are used. By using the following transformers you are able to obtain the full, rich reproduction at high volume which this system of amplification offers.



**500 Type
Mounting**

The sale of items listed herein carries no license covering their use.

P. P. 45 Type

15 to 18 WATTS OUTPUT. Plate Voltage 275. Fixed Bias 56 volts. Driver single 56.

436 or 536 INPUT, Ratio Pri. to $\frac{1}{2}$ Sec. 1.54 to 1, weight $2\frac{1}{4}$ lbs., list **\$6.00**

458 or 558 OUTPUT, 4000 ohms to 4, 8 or 15 ohms, weight 3 lbs., list **6.00**

P. P. Parallel 45 Type

30 to 40 WATTS OUTPUT. Plate Voltage 275. Fixed Bias 56 volts. Driver P. P. 56's.*

437 or 537 INPUT, Ratio Pri. to Sec. 2.1:1, weight $2\frac{1}{4}$ lbs., list **\$6.00**

1693 OUTPUT, 2000 ohms to 4, 8, 15 and 500 ohms, $3\frac{3}{4} \times 3\frac{1}{8} \times 3\frac{1}{8}$, weight $4\frac{1}{4}$ lbs. **7.00**

*NOTE—Single 45 driver with transformer No. 448 can be used in place of P. P. 56 and No. 437.

P. P. 42 or 2A5 Type

15 to 18 WATTS OUTPUT. Plate Voltage 325 to 375, Fixed Bias 38 volts. Driver Single 42 or 2A5 Triode.

448 or 548 INPUT, Ratio Pri. to $\frac{1}{2}$ Sec. 1.6 to 1, weight $2\frac{1}{4}$ lbs., list **\$6.00**

466 or 566 OUTPUT, 8000 ohms to 4, 8 or 15 ohms, weight 3 lbs., list **6.00**

P. P. Parallel 42 or 2A5

30 to 40 WATTS OUTPUT. Plate Voltage 350, Fixed Bias 35 to 40 volts. Drivers P.P. 42 or 2A5 Triodes.

449 or 549 INPUT, Ratio 1.35:1, weight $2\frac{1}{4}$ lbs., list **\$6.00**

1692 OUTPUT, 4000 ohms to 4, 8, 15 and 500 ohms Dim. $3\frac{3}{4} \times 3\frac{1}{8} \times 3\frac{1}{8}$, weight $4\frac{1}{4}$ lbs. **7.00**

Filter Chokes

Hammond Filter Chokes are well known for their excellent filtering abilities. This is obtained by careful design, proper core material and maximum number of turns of correct size wire.

Filter Chokes

Type **154**, 10 Henrys 50 Mils. Horizontal mounting bracket, dimensions same as Type 111 Audio, list price **\$1.25**

Type **155**, 30 Henrys 35 Mils. Horizontal mounting bracket, dimensions same as Type 111 Audio, list price **1.89**

Type **156**, 60 Henrys 10 Mils. Vertical mounting bracket, dimensions same as Type 116 Audio, list price **2.25**

30 Henry 65 Ma. Filter Choke

Open coil, provided with mounting bracket— $3\frac{1}{2}$ in. centres and 8 in. leads D.C. resistance 350 ohms, $2 \times 4 \times 2\frac{5}{8}$ in. Wt. $2\frac{1}{4}$ lbs.

TYPE 157 **\$2.50**

15 Henry 100 Ma. Filter or Swinging Choke

Same size as type 157 D.C. resistance 160 ohms. If used as input choke reduce gap to half.

TYPE 158 **\$2.50**

30 Henry 100 Ma. Filter Choke

A heavy duty choke provided with shield with knock-outs—8 in. Insulated leads D.C. Resistance 285 ohms. Dim. $3\frac{1}{8} \times 3\frac{3}{4} \times 3\frac{3}{4}$, X Mtg. Wt. $3\frac{1}{2}$ lbs.

TYPE 159 **\$4.00**

Amplifier Equipment



19, 30, 49 Class "B"

For low power and battery operation. 2 to 3.5 watts output. 135 to 180 volts.

INPUT—For 19, 30 or 49 driver
1520—3x2x2 3/8 in., 1 lb. 3 oz. **\$3.00**
 OUTPUT—10,000 ohms to 1-4-9 ohms
1526—3x2x2 3/8 in., 1 lb. 3 oz. **\$3.00**



53, 6A6 and 79 Class "B"

For A.C. and portable auto public address. 8 to 10 watts output. 250 to 300 volts.

INPUT—53, 79 or 56 driver
1530—2 1/2 x 2 1/2 x 3 in. 2 1/4 lbs. **\$5.00**
 OUTPUT—10,000 ohms to 1-4-9 ohms
1535—2 1/2 x 3 x 3 in. 3 lbs. **\$6.00**

46 and 59 Class "B"

Most popular type. 20 to 30 watts output. 300 to 425 volts. High quality construction throughout. X Mounting.

INPUT—45, 46 or 59 driver.
1540—2 1/2 x 2 1/2 x 3 in. 2 1/4 lbs. **\$5.00**
 OUTPUT—6000 ohm to 4-8-15-500 ohms.
1545—3 3/4 x 3 1/8 x 3 1/8 in. 4 1/4 lbs. **\$7.00**

P.P. Parallel 46 or 59 Class "B"

50-60 watts. Mounted same as type 1540 and 1545.

INPUT—P.P. 45 drivers.
1542—2 1/2 x 3 x 3 in. 3 lbs. **\$6.00**
 OUTPUT—3000 ohm to 4-8-15-500 ohms.
1546—3 3/4 x 4 x 3 1/8 in. 7 lbs. **\$10.00**



303A Class "B"

200 watts output. 1000 volts. For high power public address equipment, etc. Input and output transformers with terminal lugs.

INPUT—P.P. 2A3 (Automatic Bias) Drivers.
1560—3 3/4 x 3 1/8 x 3 1/8 in. 4 1/4 lbs. **\$9.00**
 OUTPUT—7000 ohms to 500 ohms.
1565—3 3/4 x 6 x 4 1/8 in. 12 lbs. **\$16.00**

2A3 Class "A" Output

Balanced windings, high quality construction. Fixed Bias; 3000 ohms plate to plate. Same dimensions and mounting as No. 1545.

1690—Output tapped at 4-8-15-500 ohms **\$7.00**

HIGH LEVEL AUDIOS

Line to Single or P.P. Grids

Level-Plus 20 to 35 db. Response—30 to 10,000 cps. Balanced and electrostatically shielded windings. Input 500/125 ohms. Output 50,000/12,500 ohms.

1695—3 3/4 x 4 1/2 x 4 1/8 in. 8 3/4 lbs. **\$16.00**

Line to Speaker

Level—plus 38db. max.

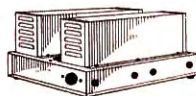
Response—30-10,000 cps.

Input—500-125 ohms.

Output tapped at 1-2-4-6-8-10-15-30 ohms.

1697—3 3/4 x 4 1/2 x 4 1/8 in. 8 3/4 lbs. **\$16.00**

Amplifier Chassis



Two standard chassis available with or without louvred covers are listed below.

Illustration shows

our No. 1452 with two No. 1455 covers. All are cadmium plated. Bottoms provided.

1450—With five or six socket holes. 7 1/4 x 16 x 2 7/8 in. high. Wt. 4 1/4 lbs. **\$2.50**

1452—Provided with 6 or 7 socket holes and punched for 25 watt Class "B" circuit No. W1123A. 13 x 16 x 2 7/8 in. high Wt. 6 1/4 lbs. **\$5.00**

1455—Cover with ventilating louvres 4 1/4 x 15 x 4 1/4 in. high. **\$1.50**

Heavy Duty Mic. and Sound Cable

1480—3-Conductor No. 18 stranded 1/32 in. colored rubber insulated; shielded, rubber jacket overall, per ft. **14c**

1485—6-Conductor No. 18 stranded 1/32 in. colored rubber insulated; shielded with rubber jacket overall, per ft. **22c**

117 Double or Single Button Mic. Input

A good quality Microphone to single grid input transformer. Response 60 to 6000 cps. Mtg. same as 116 audio.

Type 117List Price **\$2.50**



Filament and Special Transformers

163 Tube Checker Transformer

Pri. 115 v. tapped at 100 v. Fil. tapped at 1.5, 2.0, 2.5, 3.3, 5.0, 6.3, 7.5, 13.5 and 27.5 volts. Color code and circuit packed with each transformer. 2 1/2 x 3 x 3 in. Wt. 3 lbs.

25-60 cy. Universal Type **\$4.00**

164 Auto "B" Eliminator Transformer

Primary and secondary centre-tapped, for 250v. D.C. 2 1/2 x 2 1/2 x 3 in. Wt. 2 1/4 lbs.

\$3.20

165 Filament Transformer



With two 2.5 volt 3 amp. windings, will provide 2 5v. at 6 amps. or 5v. at 3.3a. C.T., or two 2.5v. 3a. outputs. Pri. 115 volts.

60 cy. 2 1/2 x 2 1/2 x 3 in. 2 1/4 lbs. **\$2.50**

25 cy. 2 1/2 x 3 x 3 in. 3 lbs. **\$3.20**

166 Filament Transformer



2.5 volts 12 amps. (max.) centre-tapped. Pri. 115v.

60 cy. 2 1/2 x 3 x 3 in. Wt. 3 lbs. **\$3.00**

25 cy. 3 1/4 x 3 x 3 in. Wt. 4 1/4 lbs. **\$3.80**

167 Filament Transformer



6.3 volts 3 amps. C.T., Pri. 115v.

60 cy. 2 1/2 x 2 1/2 x 3 in. Wt. 2 1/4 lbs. **\$2.50**

25 cy. 2 1/2 x 3 x 3 in. Wt. 3 lbs. **\$3.20**

168 Line Regulating Auto Transformer

Output 115 volts 200 watts, Input tapped for 85, 95, 105, 115 and 125 volts. Output can be kept within 5% of desired voltage. X Mountings.

60 cy. 3 1/4 x 3 3/4 x 3 1/2 in. Wt. 4 1/4 lbs. **\$3.60**

25 cy. 3 1/4 x 3 3/4 x 4 in. Wt. 5 3/4 lbs. **\$4.80**

169 Line Regulating Auto-Transformer

Output 115 volts 1000 watts, Input tapped for 85, 95, 105, 115 and 125 volts. Mounted with type "R" cast end housings.

60 cy. 5x6 1/4 x 6 1/4 in. Wt. 19 lbs. **\$15.60**

25 cy. 5x7 3/4 x 6 1/4 in. Wt. 25 lbs. **\$21.00**

170—220 to 110 Volt Auto-Transformer

For operating Radios and other 115 v. equipment from 220-230 volt lines. X Mounting. 300 watts.

60 cy. 3 3/4 x 4 1/2 x 4 1/2 in. Wt. 9 1/2 lbs. **\$7.00**

25 cy. 3 3/4 x 4 1/2 x 6 in. Wt. 13 1/4 lbs. **\$10.00**

171 Exciter-Lamp Transformer



Output 10 volts at 7.5 amps Pri. 115 volts tapped at 100 volts. Mounted with type "J" end housings and terminal bolts.

60 cy. 3 3/4 x 4 1/4 x 4 3/4 in. Wt. 8 lbs. **\$6.00**

25 cy. 3 3/4 x 4 3/4 x 4 3/4 in. Wt. 9 1/4 lbs. **\$8.00**

173 Speaker Field Exciter Transformer

Pri. 115v. Sec. 180-180 volts, Fil 5v. 3A. C.T., D.C. Output 240 mils. Will excite four 2500 ohm fields in parallel at 60 mils or 9 to 10 watts each. Mounted with "X" cases and 8 inch leads.

60 cy. 3 1/8 x 4 1/4 x 3 3/4 in. Wt. 6 1/4 lbs. **\$5.00**

25 cy. 3 3/4 x 4 1/4 x 4 1/2 in. Wt. 8 1/2 lbs. **\$7.00**

210 Fixed Bias Power Transformer



Enables fixed bias to be added to any existing amplifier. Primary 115 volts 25 or 60 cycles. Sec. 100 volts 30 ma. Filament, 1.5 volts for 226 rectifier.

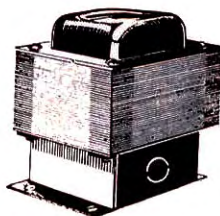
Type 210—2 1/2 x 2 1/2 x 3", wt. 2 1/4 lbs., list price **\$3.20**

212 Condenser Tester Transformer

Primary 115 volts 25 or 60 cycles. Secondary tapped at 200, 400, 600 and 800 volts. Filament 5v. .25 amp. Drawn steel mountings same as type 210.

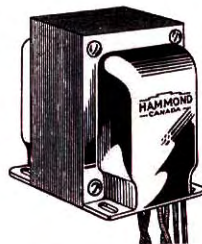
Type 212—2 1/2 x 3 x 3", Wt. 3 lbs., list **\$4.50**

Replacement Power Transformers



"Z" Mounting
Pat. Pending

Hammond Replacement Power Transformers have been the accepted standard with Servicemen throughout Canada for five years. This is due mainly to their dependability, their excellence of construction, and the ease of installation. Three mountings are available; the famous "TZ", now designated "Z", the "S", and the new "X" which is a vertical mounting. Accurate machine-wound coils, using oversize wire and improved insulation, mean satisfaction to you and to your customers.



"X" Mounting

New Standard R.M.A. Color Coded Leads
A Wiring Code Card Enclosed With Each Transformer
All Primaries Wound for 115 volts.

175—25 watts 250-250 volts
5 volts 2 amps.
60 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 2\frac{1}{2}$ in. $3\frac{1}{2}$ lbs. **\$3.60**
25 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 3$ in. $4\frac{1}{2}$ lbs. **\$4.50**

176—25 watts 180-180 volts.
5 volts 2 amps.
2.5 volts 4 amps. C.T.
60 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 2\frac{1}{2}$ in. $3\frac{1}{2}$ lbs. **\$3.60**
25 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 3$ in. $4\frac{1}{2}$ lbs. **\$4.50**

178—45 watts 250-250 volts
5 volts 2 amps.
5 volts .5 amps. C.T.
2.5 volts 1.75 amps.
1.5 volts 6 amps.
60 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 3\frac{1}{2}$ in. $5\frac{1}{4}$ lbs. **\$5.60**
25 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 4\frac{1}{4}$ in. $6\frac{1}{2}$ lbs. **\$7.00**

182—60 watts 300-300 volts
5 volts 2 amps.
5 volts .5 amps. C.T.
2.5 volts 3.5 amps
1.5 volts 1.1 amps.
1.5 volts 5 amps.
60 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 3\frac{3}{4}$ in. $5\frac{3}{4}$ lbs. **\$6.50**
25 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 4\frac{1}{2}$ in. $7\frac{1}{4}$ lbs. **\$8.25**

185—60 watts 300-300 volts
5 volts 2 amps.
5 volts .5 amps. C.T.
2.5 volts 10.5 amps. C.T.
60 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 3\frac{3}{4}$ in. $5\frac{3}{4}$ lbs. **\$6.00**
25 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 4\frac{1}{2}$ in. $7\frac{1}{4}$ lbs. **\$8.00**

238—45 watts 275-275 volts
5 volts 2 amps.
2.5 volts 8 amps. C.T.
TP (Horizontal Mtg.) only.
60 cy. $2\frac{1}{3} \times 16 \times 3\frac{3}{8} \times 2$ in. $3\frac{1}{4}$ lbs. **\$4.00**
25 cy. $2\frac{1}{3} \times 16 \times 3\frac{3}{8} \times 3$ in. $4\frac{1}{2}$ lbs. **\$5.50**

240—60 watts 300-300 volts
5 volts 2 amps.
2.5 volts $8\frac{3}{4}$ amps. C.T.
60 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 3\frac{3}{4}$ in. 5 lbs. **\$5.00**
25 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 4\frac{1}{2}$ in. 7 lbs. **\$7.00**

245—70 watts 330-330 volts
5 volts 2 amps.
2.5 volts 10.5 amps. C.T.
2.5 volts 1.75 amps. C.T.
60 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 3\frac{3}{4}$ in. 5 3-4 lbs. **\$5.50**
25 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 4\frac{3}{4}$ in. 8 lbs. **\$8.00**

246—100 watts, 340-340 volts
5 volts 2 amps.
2.5 volts 10.5 amps. C.T.
2.5 volts 3.5 amps. C.T.
60 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 4\frac{1}{4}$ in. $6\frac{3}{4}$ lbs. **\$6.00**
25 cy. $3\frac{3}{8} \times 4\frac{1}{2} \times 4\frac{1}{2}$ in. $9\frac{1}{2}$ lbs. **\$8.25**

248—120 watts—Universal Type.
Sec. 375-300-0-300-375v.
5v. 3A. C.T.
5v. tapped at 2.5 and 1.25v. 3.5A.
2.5v. tapped at 1.5v. 10A.
2.5v. 1.75A.
(Direction sheet enclosed)
60 cy. $3\frac{1}{8} \times 3\frac{3}{4} \times 4\frac{3}{4}$ in. 8 lbs. **\$7.50**
25 cy. $3\frac{3}{8} \times 4\frac{1}{2} \times 5$ in. 11 lbs. **\$10.00**

250—125 watts 375-375 volts
5. volts 3 amps.
2.5 volts 3.5 amps. C.T.
2.5 volts 10.5 amps. C.T.
60 cy. $3\frac{3}{8} \times 4\frac{1}{2} \times 4$ in. 8 lbs. **\$7.00**
25 cy. $3\frac{3}{8} \times 4\frac{1}{2} \times 5$ in. 11 lbs. **\$9.00**

260—150 watts 400-400 volts
5. volts 3 amps. C.T. for 82 or 83.
2.5 volts 14 amps. C.T.
2.5 volts 5 amps. C.T.
60 cy. $3\frac{3}{8} \times 4\frac{1}{2} \times 4\frac{1}{2}$ in. $9\frac{1}{2}$ lbs. **\$7.50**
25 cy. $3\frac{3}{8} \times 4\frac{1}{2} \times 5\frac{1}{2}$ in. $13\frac{1}{4}$ lbs. **\$10.00**



Replacement Power Transformers

6.3 Volt Filament Types

271 —45 watts 275-275 volts 5 volts 2 amps. 6.3 volts 2 amps. C.T. TP (Horizontal Mtg.) only	
60 cy. 2 13-16x3 3/8x2 in. 3 1/4 lbs.	\$4.00
25 cy. 2 13-16x3 3/8x3 in. 4 1/2 lbs.	\$5.50
272 —60 watts 300-300 volts 5 volts 2 amps. 6.3 volts 2.4 amps. C.T.	
60 cy. 3 1/8x3 3/4x3 3/4 in. 5 lbs.	\$5.00
25 cy. 3 1/8x3 3/4x4 1/2 in. 7 lbs.	\$7.00
273 —100 watts 340-340 volts. 5 volts 2 amps. 6.3 volts 3 amps. C.T.	
60 cy. 3 1/8x3 3/4x4 1/4 in. 6 3/4 lbs.	\$6.00
25 cy. 3 3/4x4 1/2x4 1/2 in. 9 1/2 lbs.	\$8.25
274 —125 watts 375-375 volts. 5 volts 3 amps. 6.3 volts 3 amps. C.T.	
60 cy. 3 3/4x4 1/2x4 in. 8 lbs.	\$7.00
25 cy. 3 3/4x4 1/2x5 in. 11 lbs.	\$9.00
275 —150 watts 400-400 volts 5 volts 3 amps. C.T. for 82, 80, 83 or 5Z3. 6.3 volts 4 amps. C.T.	
60 cy. 3 3/4x4 1/2x4 1/2 in. 9 1/2 lbs.	\$7.50
25 cy. 3 3/4x4 1/2x5 1/2 in. 13 1/4 lbs.	\$10.00

Class "B" and Class "A" Fixed Bias

261 —POWER TRANSFORMER WITH FIXED BIAS TAP and Filament wind- ing for 26 Rectifier Tube.	
Primary 115 volts, 150 watts.	
Secondary 800 volts C.T. 150 ma. D.C.	
Secondary Tapped at 100 volts from C.T.	
Filament 5v.3a. C.T. (5Z3, 80 or 82)	
Filament 2.5v.10a. C.T.	
Filament 2.5v. 6a. C.T. (2-2A3 or 4-45)	
Filament 1.5v. 1.1a. (26 rectifier)	
60 cy. 3 3/4x4 1/2x4 1/2 in. Wt. 9 1/2 lbs.	\$8.25
25 cy. 3 3/4x4 1/2x6 in. Wt. 13 1/4 lbs.	\$10.75
265 —125 watts, Secondary 510-510 volts low resistance winding giving extremely good regulation. X Mount- ing—use with type 266 filament trans- former.	
60 cy. 3 3/4x4 1/2x3 3/4 in. 8 lbs.	\$6.40
25 cy. 4 1/2x4 1/2x3 3/4 in. 11 lbs.	\$8.50
266 —48 watts—no secondary. Use with type 265. X Mounting. 5 volts 3 amps. C.T. 2.5 volts 10 amps. C.T. 2.5 volts 3.5 amps. C.T.	
60 cy. 3x3 3/4x3 1/8 in. 4 1/4 lbs.	\$4.00
25 cy. 3 3/4x3 3/4x3 1/8 in. 6 1/4 lbs.	\$5.00

Specially Mounted Models

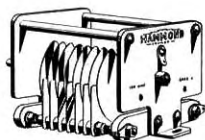
the following twenty-one types specially designed and mounted for quick installation. They are "Hammond Built" throughout.

In addition to the above Standard Replacement Transformers, there are available

	25 Cycle	60 Cycle
Brunswick S-14, S-21, S-31	\$12.50	\$10.00
Deforest-Crosley, Aria, Melody, Brock, (transformer only, ready to seal in)	8.50	6.40
General Electric S-22, S-22X, S-42	8.00	6.00
General Electric H-31, H51, 71	10.00	8.00
G.E. J100, 105, 107 ..	10.00	8.00
G.E. K-62	10.00	8.00
Lyric 90	10.00	8.00
Marconi 26	8.50	6.40
Marconi 28	7.00	5.60
Radiola 17, 18, 33	7.50	6.00

	25 Cycle	60 Cycle
Radiola 60	8.50	6.40
Sonora D-50, 70	8.00	6.00
Sparton 410, 420	10.00	8.00
Sparton 600, 610, 620 ..	12.50	10.00
Sparton 931	10.00	8.00
Stewart-Warner 950, R- 100 etc.	9.20	7.40
Stewart-Warner R-102 A, B, E.	8.00	6.00
Victor R-6, 7, 8, 9, 104, 105	8.00	6.00
Victor R-11, 12, 41, 109 ..	10.00	8.00
Victor R-15, G.E. T41 ..	10.00	8.00
Victor R-28, 29, 31, 33, 37	8.00	6.00
Victor R-32, 42, 45	12.50	10.00
Victor R-35, 39, 57	10.00	8.00

Variable Condensers



(Patent Pending)

The new HAMMOND VARIABLE CONDENSERS feature a new type of construction which offers lower losses at ultra-high frequencies, a higher maximum-to-minimum capacity factor and an extremely rigid yet precision assembly. Three Series, our 7000 series with 1½" rotor, the 8000 series with 2½" rotor and the 9000 series with 3½" rotor are available. All types have the capacity and voltage rating stamped on end plate and Isolantite and Mycalex insulation is used exclusively. Other interesting points include heavy end plates punched from hard aluminum alloy, rigid aluminum tie-bars and a special phosphor-bronze rotor contactor.

A TRULY CANADIAN PRODUCT

7000 SERIES—A Precision Midget, Isolantite Insulation, 1½" rotor, single hole mounting, with ¼" shaft, 1 11/16" wide, 1 15/16" high. Straight line capacity.

Type	Capacity—MMFDS	Voltage Rating, 3000 kc.	List Price	
7102	20	1000	Plain	\$2.50
7105	50	"	"	2.75
7110	100	"	"	3.00
7115	150	"	"	3.20
7125	250	"	"	3.50
7705 (dual)	50-50	**	"	4.00
7710 (dual)	100-100	**	"	4.50

* Sections in series, rating 2000 volts.

8000 SERIES—Standard Size; Isolantite Insulation, 2½" rotor, 3 point panel or sub-base mounting; ¼" shaft, 2¾" wide, 2¾" high. Straight line capacity.

8110	100	1000	Plain	\$3.20
8115	150	"	"	3.45
8125	250	"	"	3.75
8135	350	"	"	4.00
8150	500	"	"	4.35
8820 (dual)	200-200	"	"	6.20
8302	20	3000	Rounded	3.30
8305	50	"	"	3.75
8310	100	"	"	4.75
8315	150	"	"	6.00
8805 (dual)	50-50	**	"	7.10
8810 (dual)	100-100	**	"	8.20

* Sections in series, rating 5000 volts.

9000 SERIES—Heavy Duty Type; Mycalex Insulation, 3½" rotor, ¼" shaft; 3⅞" high, 3⅞" wide. Straight line capacity type.

9310	100	3000	Rounded	\$4.50
9315	150	"	"	5.50
9325	250	"	"	6.75
9335	350	"	"	8.80
9602	20	6000	"	4.25
9605	50	"	"	6.00
9607	75	"	"	9.00
9610	100	"	"	11.25
9905	50-50	**	"	13.50
9910	100-100	**	"	18.00

* Sections in series, rating 11,000 volts.



Hammond Transmitting Equipment

The wide and successful experience of The Hammond Manufacturing Company in building Broadcast and Amateur Equipment is your assurance of dependable products and real satisfaction. You will find transformers, chokes, etc., for every requirement listed with full specifications, dimensions, weights, and list prices.

PLATE TRANSFORMERS—Featuring

- 1—Oversize construction throughout.
- 2—Coils, vacuum treated with best electrical baking varnish.
- 3—Rigid cadmium-plated cast end housings—Eliminating vibrations.
- 4—Terminals in porcelain bushings on larger models (marked*).
- 5—Balanced secondary windings—Equal resistance and voltage.
- 6—Tapped primary and secondary—Giving all desired outputs.

H.E.P.C. APPROVAL NO. 3902

746 Power Transformers



Secondary. 500-0-500v.
(200 ma. D.C. using input
choke) Fil. 5v. 3a. C.T.,
2.5v. 3.5a. C.T., 2.5v. 10a.
C.T., 180 watts. Pri. 115v.,
Insulation test 2500v.

60 cy. $3\frac{3}{4} \times 5\frac{1}{2} \times 4\frac{5}{8}$ in. 12 $\frac{1}{2}$ lbs. **\$12.50**

25 cy. $5 \times 6\frac{1}{2} \times 6\frac{1}{4}$ in. 17 $\frac{3}{4}$ lbs. **\$17.00**

747 Plate Transformer

Secondary 600-500-0-500-600 v. (200
ma. D.C.) 150 watts, Pri. tapped at
105, 115, 125v. Insulation test 2500 v.

60 cy. $3\frac{3}{4} \times 4\frac{3}{4} \times 4\frac{3}{4}$ in. 9 $\frac{1}{2}$ lbs. **\$9.50**

25 cy. $3\frac{3}{4} \times 6 \times 4\frac{3}{4}$ in. 14 lbs. **\$12.50**

750 Plate Transformer

Secondary 750-500-0-500-750 v. (200
ma. D.C.) 180 watts, Pri. tapped at
105, 115, 125v. Insulation test 3000 v.

60 cy. $3\frac{3}{4} \times 5\frac{3}{4} \times 4\frac{3}{4}$ in. 12 $\frac{1}{2}$ lbs. **\$12.00**

25 cy. $5 \times 6\frac{1}{2} \times 6\frac{1}{4}$ in. 17 $\frac{3}{4}$ lbs. **\$16.50**

*760 Plate Transformer

Secondary 1500-1250-0-1250-1500 v.
(200 ma. D.C.) 360 watts, Pri. tapped
at 105, 115, 125 v. Insulation test
5000 v.

60 cy. $5 \times 7\frac{1}{4} \times 6\frac{1}{4}$ in. 22 lbs. **\$20.75**

25 cy. $5 \times 8\frac{3}{4} \times 6\frac{1}{4}$ in. 31 lbs. **\$27.50**

*765 Plate Transformer

New Plate Transformer—Tapped to give
920, 1000, 1080, 1150, 1250 or 1360 volts at
300 mills D.C. continuously — or more
intermittantly. Primary tapped at 105
115, 125 volts, Secondary tapped at 1250
and 1500 volts each side of C.T.
Output rating 600 watts.

60 cy. $5 \times 8\frac{3}{4} \times 6\frac{1}{4}$ in. Wt. 31 lbs. **\$27.50**

25 cy. $9 \times 8\frac{1}{2} \times 7\frac{1}{2}$ in. Wt. 51 lbs. **\$38.00**



*770 Plate Transformer

Secondary 1500-1250-0-1250-1500 v.
(500 ma. D.C.), 900 watts, Pri. tapped
at 105, 115, 125 v. Insulation test
5000 v.

60 cy. $9 \times 8\frac{1}{2} \times 8$ in. 58 lbs. (N) **\$44.00**

25 cy. $9 \times 10 \times 8$ in. 79 lbs. (N) **\$58.50**



*775 Plate Transformer

Secondary 2500-2000-0-2000-2500 v.
200 ma. D.C., 600 watts, Pri. tapped at
105, 115, 125 v. Insulation test 7500 v.

60 cy. $5 \times 8\frac{3}{4} \times 6\frac{1}{4}$ in. 31 lbs. (R) **\$35.00**

25 cy. $9 \times 8\frac{1}{2} \times 8$ in. 58 lbs. (N) **\$45.00**

*785 Plate Transformer

Secondary 2500-2000-0-2000-2500 v.
500 ma. D.C., 1500 watts, Pri. tapped
at 105, 115, 125 v. Insulation test
7500 volts.

60 cy. $9 \times 9 \times 8$ in. 59 lbs. (N) **\$63.75**

25 cy. $9 \times 12 \times 8$ in. 110 lbs. (N) **\$85.00**

Hammond Transmitting Equipment



PLATE TRANSFORMERS (Cont.) For Bridge Rectification

815 Plate Transformer



Secondary 1000 v. C.T.
for 150 ma. D.C., 150
watts, Pri. 115 v.

60 cy. $3\frac{3}{4} \times 4\frac{3}{4} \times 4\frac{3}{4}$ in. $9\frac{1}{2}$ lbs. **\$7.50**
25 cy. $3\frac{3}{4} \times 6 \times 4\frac{3}{4}$ in. 14 lbs. **\$10.00**

820 Plate Transformer

Secondary 1250 v. C.T., for 150 ma.
D.C. 190 watts, Pri. 115 v.

60 cy. $3\frac{3}{4} \times 5\frac{3}{4} \times 4\frac{3}{4}$ in. 13 lbs. **\$10.00**
25 cy. $5 \times 6\frac{1}{2} \times 6\frac{1}{4}$ in. $17\frac{1}{2}$ lbs. **\$13.75**

840 Plate Transformer

Secondary 1000 v. C.T., 300 ma. D.C.
300 watts, Pri. 115 v.

60 cy. $5 \times 6\frac{1}{2} \times 6\frac{1}{4}$ in. $17\frac{1}{2}$ lbs. **\$15.00**
25 cy. $5 \times 7\frac{3}{4} \times 6\frac{1}{4}$ in. 25 lbs. **\$20.75**

860 Plate Transformer

Secondary 1250 v. C.T. 300 ma. D.C.
375 watts, Pri. 115 v.

60 cy. $5 \times 6\frac{3}{4} \times 6\frac{1}{4}$ in. 19 lbs. **\$17.50**
25 cy. $5 \times 8\frac{3}{4} \times 6\frac{1}{4}$ in. 31 lbs. **\$23.00**

3 PHASE AND SPECIAL TRANSFORMERS - - - Write for Prices

FILAMENT TRANSFORMERS



1120— This transformer
has two 2.5v3a. windings,
making it very useful.
Will provide 2.5v. at 6a.
or 5 v. at 3a. C.T. or two
2.5v. 3a. outputs. Pri.
115v. Insulation test 2000
v.

60 cy. $2\frac{1}{2} \times 3 \times 3$ in. $2\frac{1}{4}$ lbs. **\$3.20**
25 cy. $2\frac{1}{2} \times 3\frac{1}{2} \times 3$ in. 3 lbs. **\$4.00**

1122—OUTPUT 2.5v. at 12 a. C.T.
Pri. 115v. tapped at 100 v. for close
regulation using a series rheostat. In-
sulation test 2000 v.

60 cy. $2\frac{1}{2} \times 3\frac{1}{2} \times 3$ in. 3 lbs. **\$3.60**
25 cy. $3\frac{1}{4} \times 3\frac{1}{2} \times 3\frac{3}{4}$ in. $4\frac{1}{4}$ lbs. **\$4.80**

1126—Has windings for 2.5v. 3.5a.,
2.5v. 10a. and 5v.3a., all centre-tapped.
By connecting windings in series, out-
puts of 7.5 and 10 volts can also be
obtained. Pri. 115 v. tapped at 100 v.
Insulation test 2000 v.

60 cy. $3\frac{1}{4} \times 3\frac{1}{2} \times 3\frac{3}{4}$ in. $4\frac{1}{4}$ lbs. **\$6.00**
25 cy. $3\frac{1}{4} \times 4\frac{1}{4} \times 3\frac{3}{4}$ in. $6\frac{1}{4}$ lbs. **\$8.00**

1127—Filament Transformer, 5v. 6a.
C.T. Pri. 115 volts tapped at 100v.
Insulation test 2000v.

60 cy. $2\frac{1}{2} \times 3\frac{1}{2} \times 3$ in. 3 lbs. **\$3.60**
25 cy. $3\frac{1}{4} \times 3\frac{1}{2} \times 3\frac{3}{4}$ in. $4\frac{1}{4}$ lbs. **\$4.80**

1128—6.3v. FILAMENT TRANSFORM-
ER has 6.3v. 4A. Centre Tapped second-
ary Pri. 115v. tapped at 100v. In-
sulation test 2000v.

60 cy. $2\frac{1}{2} \times 3\frac{1}{2} \times 3$ in. 3 lbs. **\$3.60**
25 cy. $3\frac{1}{4} \times 3\frac{1}{2} \times 3\frac{3}{4}$ in. $4\frac{1}{4}$ lbs. **\$4.80**

1130—OUTPUT, 7.5v. 3.25a. C.T. for
new 800, 801 and for 210's etc., Pri.
115 v. tapped at 100 v. Insulation test
2000 v.

60 cy. $2\frac{1}{2} \times 3\frac{1}{2} \times 3$ in. 3 lbs. **\$3.60**
25 cy. $3\frac{1}{4} \times 3\frac{1}{2} \times 3\frac{3}{4}$ in. $4\frac{1}{4}$ lbs. **\$4.80**

1132—OUTPUT 7.5v. 6.5a. C.T. Pri.
115 volts tapped at 100v. Insulation
test 2000 v.

60 cy. $3\frac{1}{4} \times 3\frac{1}{2} \times 3\frac{3}{4}$ in. 4 lbs. **\$5.00**
25 cy. $3\frac{1}{4} \times 4 \times 3\frac{3}{4}$ in. $5\frac{1}{2}$ lbs. **\$6.60**

1135—Four output wind-
ings are provided on this
transformer, making it
very useful for the Ama-
teur. 2.5v. 3a., 2.5v.10a.,
5v.3a. and 7.5v. 3.25a. all
centre-tapped. Pri. 115 v.
tapped at 100 v. Insulation
test 2000 v.



60 cy. $3\frac{1}{4} \times 4 \times 3\frac{3}{4}$ in. $5\frac{1}{2}$ lbs. **\$6.60**
25 cy. $3\frac{3}{4} \times 4\frac{1}{2} \times 4\frac{3}{4}$ in. $8\frac{3}{4}$ lbs. **\$8.75**



Hammond Transmitting Equipment

FILAMENT TRANSFORMERS (Cont.)

1140—OUTPUT 10v. 3.25a. C.T., Pri. 115v. tapped at 100v. Insulation test 2000 v.

60 cy. $3\frac{1}{4} \times 3\frac{1}{4} \times 3\frac{3}{4}$ in. $3\frac{3}{4}$ lbs. **\$4.80**
25 cy. $3\frac{1}{4} \times 3\frac{3}{4} \times 3\frac{3}{4}$ in. $4\frac{3}{4}$ lbs. **\$6.40**

1142—Output 10v. 6.5a. C.T., Pri. 115v. tapped at 100v. Insulation test 2000 v.

60 cy. $3\frac{1}{4} \times 3\frac{3}{4} \times 3\frac{3}{4}$ in. 4 3-4 lbs. **\$6.00**
25 cy. $3\frac{1}{4} \times 4\frac{1}{2} \times 3\frac{3}{4}$ in. 7 lbs. **\$8.00**



1143—Has two windings of 10v. at 6.5 amps., both centre-tapped. Pri. 115 v. tapped at 100v. Insulation test 2000 v.

60 cy. $3\frac{3}{4} \times 4\frac{1}{2} \times 4\frac{3}{4}$ in. 8 3-4 lbs. **\$9.80**
25 cy. $3\frac{3}{4} \times 5\frac{1}{4} \times 4\frac{3}{4}$ in. $12\frac{1}{2}$ lbs. **\$13.00**

1150—Output 11v. 5a. C.T., Pri. 115v. tapped at 100v. Insulation test 3000 v.

60 cy. $3\frac{1}{4} \times 4 \times 3\frac{3}{4}$ in. $5\frac{1}{2}$ lbs. **\$5.00**
25 cy. $3\frac{1}{4} \times 4\frac{1}{2} \times 3\frac{3}{4}$ in. 7 lbs. **\$6.60**

1153—Output 11 volts 15 amps. C.T. Pri. 115v. tapped at 100 v. Insulation test 3000 volts.

60 cy. $3\frac{3}{4} \times 5 \times 4\frac{3}{4}$ in. $10\frac{1}{2}$ lbs. **\$10.25**
25 cy. $3\frac{3}{4} \times 6 \times 4\frac{3}{4}$ in. $14\frac{1}{2}$ lbs. **\$13.50**

1155—Output 14 volts 6 amps. C.T. Pri. 115v. tapped at 100v. Insulation test 3000 volts.

60 cy. $3\frac{1}{4} \times 4 \times 3\frac{3}{4}$ in. $5\frac{3}{4}$ lbs. **\$7.20**
25 cy. $3\frac{3}{4} \times 5 \times 4\frac{3}{4}$ in. $10\frac{1}{2}$ lbs. **\$9.60**

1158—Output 22 volts 34 amps. C.T. Pri. 115v. tapped at 100v. Insulation test 6000 volts.

60 cy. $5 \times 8\frac{3}{4} \times 6\frac{1}{4}$ in. 30 lbs. **\$30.00**
25 cy. $9 \times 8 \times 8$ in. 60 lbs. **\$40.00**

Special Filament, Plate and other transformers can be built to your requirements. Write for prices.

RECTIFIER FILAMENT TRANSFORMERS

1182—FILAMENT FOR BRIDGE RECTIFICATION using four 82's. 2.5v. 3a., 2.5v.3a. and 2.5v.6a. (not centre-tapped) Pri. 115v. tapped at 100v. Insulation test 3000 volts. Electrostatic shield.

60 cy. $3\frac{1}{4} \times 3\frac{1}{4} \times 3\frac{3}{4}$ in. $4\frac{1}{4}$ lbs. **\$5.00**
25 cy. $3\frac{1}{4} \times 3\frac{3}{4} \times 3\frac{3}{4}$ in. $5\frac{3}{4}$ lbs. **\$7.00**

1183—FILAMENT FOR BRIDGE RECTIFICATION using three or four 83's 5v. 3a., 5v.3a., and 5v. 6a., all centre-tapped. Pri. 115v. tapped at 100 v. Insulation test 3000 volts, Electrostatic shield.

60 cy. $3\frac{1}{4} \times 3\frac{3}{4} \times 3\frac{3}{4}$ in. $5\frac{3}{4}$ lbs. **\$7.50**
25 cy. $3\frac{3}{4} \times 5 \times 4\frac{3}{4}$ in. $9\frac{3}{4}$ lbs. **\$10.00**

1165—Filament for one 866, 866A, etc. 2.5v. at 5a. C.T., Pri. 115v. tapped at 100v. Insulation test 10,000v. Electrostatic shield.

60 cy. $3\frac{1}{4} \times 3 \times 3\frac{1}{4}$ in. 4 lbs. **\$4.00**
25 cy. $3\frac{1}{4} \times 3\frac{1}{4} \times 3\frac{3}{4}$ in. $4\frac{1}{2}$ lbs. **\$5.00**

1166—Filament for two 866, 866A, etc. 2.5v. at 10a. C.T., Pri. 115v. tapped at 100v. Insulation test 10,000v. Electrostatic shield.

60 cy. $3\frac{1}{4} \times 3 \times 3\frac{3}{4}$ in. 4 lbs. **\$5.00**
25 cy. $3\frac{1}{4} \times 3\frac{3}{4} \times 3\frac{3}{4}$ in. $5\frac{3}{4}$ lbs. **\$7.00**

Hammond Transmitting Equipment



RECTIFIER FILAMENT TRANSFORMERS (Cont.)

1171—For single 872, 72A, etc.. 5 volts at 10 amps. C.T., Electrostatically shielded 115 volt primary tapped at 100 volts. Insulation test 12500 volts.

60 cy. $3\frac{3}{4} \times 4\frac{3}{4} \times 4\frac{3}{4}$ in. 9 $\frac{3}{4}$ lbs. **\$10.00**
25 cy. $3\frac{3}{4} \times 5\frac{1}{2} \times 4\frac{3}{4}$ in. 12 lbs. **\$12.50**

1172—For two 872, 72A, 5v. at 20 amps. C.T. Electrostatically shielded. Pri. tapped at 100 volts. Insulation test 12500 volts.

60 cy. $5 \times 5\frac{3}{4} \times 6\frac{1}{4}$ in. 13 lbs. **\$13.50**
25 cy. $5 \times 6\frac{1}{2} \times 6\frac{1}{4}$ in. 17 $\frac{1}{2}$ lbs. **\$15.00**

FILAMENT TRANSFORMERS for 869, WE255A, 217 etc. and Federal Tubes can be supplied promptly. Write for prices.

"SWINGING" OR INPUT CHOKES

The importance of a choke of correct characteristics in the input of a filter system is now generally recognized. The following listed Chokes, while nominally rated at 10 henries, have the gap adjusted to give the correct "Swinging" action for 60 cycle power.

Note—For 25 cycle power it is necessary to use a choke that will swing from approximately 15 to 50 or more henries. A regular Hammond 20 henry Filter Choke of the correct M.A. rating with the gap reduced is recommended.



Type 10-100



Type 10-150
Type 10-200



Type 10-500
Type 10-750
Type 10-1000

Type	Inductance Henrys	Capacity M.A.	D.C. Resistance	Insulation Test	Net Weight	List Price
10- 100	15	100	170	2000	2 $\frac{1}{2}$	\$ 3.00
10- 150	10	150	102	3000	4	4.00
10- 200	10	200	82	3000	5 $\frac{1}{2}$	6.00
10- 300	10	300	64	4000	10 $\frac{3}{4}$	8.50
10- 500*	10	500	56	5000	22	18.50
10- 750*	10	750	38	7500	32	26.50
10-1000*	10	1000	35	7500	54	48.00

*Terminals brought out through Porcelain Insulators.



Hammond Transmitting Equipment



FILTER CHOKES

Hammond Filter Chokes are liberally designed, and will operate continuously at full rated current without overheating. Provision is made for adjustment of gap and the inductance is rated at full load current as in actual operation.

Type	Inductance Henrys	Capacity M.A.	D.C. Resistance	Insulation Test A.C.	Weight Lbs.	List Price
30-65	30	65	350	1500	2 1/4	\$ 3.00
30-100	30	100	290	2000	4	4.50
30-150	20	150	220	3000	9 1/2	8.00
30-200	30	200	155	4000	12 1/2	10.50
30-300*	30	300	140	4000	24	19.00
30-500*	30	500	105	5000	39	35.50
30-750*	30	750	90	5000	72	58.00
30-1000*	30	1000	80	5000	110	98.25

*Terminals brought out through Porcelain Insulators.

TAPPED FILTER CHOKES

Tapped to give correct bias to Class "B" Modulators, etc. Can also be used for tuned choke systems.

Type 30-100T, same dimensions as type 30-100, 5 terminals, list.....\$5.50

Type 30-150T, same dimensions as type 30-150, 5 terminals, list..... 9.00



MODULATION AND PLATE REACTORS

For high quality output when using Heising Modulation it is absolutely necessary that the Modulation Reactor be of correct design and made of the best materials. Hammond Modulation Reactors have the winding split into sections which almost eliminates the by-passing effect on the high frequencies, and the high inductance, 50 henries, provides full bass response.

Type	Inductance Henrys	Capacity M.A.	D.C. Resistance	Insulation Test A.C.	Weight Lbs.	List Price
MC-200*	50	200	290	3000	22	\$27.25
MC-300*	50	300	185	5000	52	56.75
MC-500*	50	500	100	7500	95	95.50

*Terminals brought out through Porcelain Insulators.

RADIO FREQUENCY CHOKES



This HAMMOND Midget R.F. Choke will be found most useful for Short Wave Receivers and Transmitters. Provided with 2 in. tinned wire leads, 1 3/4 in. long overall. Isolantite core, D.C. Res. 33 ohms, 125 ma. D.C.

142060



The importance of Radio Frequency Chokes is appreciated by successful transmitter constructors. The new HAMMOND R.F. Chokes are pie-wound on low-loss ceramic cores with ample insulation and ruggedness and at the same time offering ample impedance at rated frequencies. Their distinctive mounting makes them desirable for all types of installations.

1431—250	ma.	20-200 m.	\$1.75
1432—1000	ma.	20-200 m.	\$3.00
1435—250	ma.	200-600 m.	\$3.00
1436—1000	ma.	200-600 m.	\$4.50

Class "B" Modulation Transformers



ALL the refinements in design, such as balanced, low-capacity and low-leakage loss construction, which are so necessary in Class "B" transformers, are incorporated in Hammond Class "B". They are also designed to carry the Modulated Amplifier plate current making it unnecessary to instal by-pass condenser and choke, and have linear frequency characteristics over a very wide band.

As a result of our extensive research on the design and manufacture of Class "B" Modulation Transformers, and our four years actual experience in manufacturing this important line, we feel confident that you will find Hammond Class "B" superior in every way.

19, 30, 49 and 89 Type

For portable and low power Transmitters. Will satisfactorily modulate four to ten watts input. 135 to 180 volts.



2120— INPUT, 19, 30, 31, 49 or 89 driver, $3 \times 2 \times 2 \frac{3}{8}$ in. Wt. 1 lb. 3 ozs. **\$3.00**



2125— OUTPUT, 10,000 ohms to 3000 and 5000 ohms. Max. D.C. in Sec. 50 ma. $2 \frac{1}{2} \times 2 \frac{3}{8} \times 3$ in. Wt. $2 \frac{1}{4}$ lbs. **\$5.00**

53, 6A6 and 79 Type

Quality Class "B" Audios for storage battery and A.C. operated Phone Transmitters. Will 100% modulate 16 to 20 watts input. 250 to 300 volts.



2130— INPUT, 53, 79, 56 or 57 triode driver, $2 \frac{1}{2} \times 2 \times 3$ in., Wt. $2 \frac{1}{4}$ lbs. **\$5.75**



2135— OUTPUT, 10,000 ohms to 4000 and 6000 ohms, Max. D.C. in Sec. 100 ma. $3 \frac{3}{4} \times 3 \frac{3}{4} \times 3 \frac{1}{4}$ in. Wt. $4 \frac{1}{4}$ lbs. **\$7.50**

46 and 59 Type

Most widely used Class "B". Will 100% modulate 40 to 60 watts input. 300 to 425 v.



2140— INPUT, 45, 46, 59 driver $2 \frac{1}{2} \times 3 \times 3$ in., Wt. $2 \frac{1}{4}$ lbs. **\$5.75**



2145— OUTPUT, 6000 ohms to 4000 and 6000 ohms. Max. D.C. in Sec. 130 ma. $3 \frac{3}{4} \times 4 \times 3 \frac{1}{4}$ in. Wt. $5 \frac{3}{4}$ lbs. **\$9.00**

Push - Pull Parallel 46 and 59 Type

Will modulate 120 watts input. Can be used as modulator for 203A or P.P. 800's. Audio range 60-8000 cps.

2142— INPUT, P.P. 45 Drivers, $2 \frac{1}{2} \times 3 \frac{1}{4} \times 3$ in., Wt. 3 lbs. **\$7.00**

2146— OUTPUT, 3000 ohms to 3000 and 5000 ohms, Max. D.C. in Sec. 175 ma. $3 \frac{3}{4} \times 4 \frac{1}{2} \times 4 \frac{3}{4}$ in. Wt. $8 \frac{3}{4}$ lbs. **\$12.50**

210, 830, 841 Type

Will modulate 100 to 120 watts input. 500 to 600 v. Audio range 60-8000 cps.



2150— INPUT, P.P. 45 drivers, $2 \frac{1}{2} \times 3 \frac{1}{4} \times 3$ in. Wt. 3 lbs. **\$7.00**

2151— INPUT, Single 250 driver, $2 \frac{1}{2} \times 3 \frac{1}{4} \times 3$ in., Wt. 3 lbs. **\$7.00**



2155— OUTPUT, 8000 ohms, to 4000 and 6000 ohms. Max. D.C. in Sec. 150 Ma. $3 \frac{3}{4} \times 4 \frac{1}{2} \times 4 \frac{3}{4}$ in. Wt. $8 \frac{3}{4}$ lbs. **\$12.50**



Class "B" Modulation Transformers

800, 825, RK18, RK31 Type

Audio Output, 100 watts, Plate voltage 1000, Audio range 60-8000 cps.

2170—INPUT, P.P. 2A3 (Auto. Bias. Drivers $2\frac{1}{2} \times 3\frac{1}{4} \times 3$ in., Wt. 3 lbs. **\$7.00**



2175—OUTPUT, 12,500 ohms to 5000 and 7000 ohms, Max. D.C. in Sec. 200 ma. $3\frac{3}{4} \times 6\frac{1}{2} \times 4\frac{3}{4}$ in. Wt. 14 lbs. **\$16.00**

838, 203A Type

Audio output 200 watts, Plate voltage 1000, Audio range 60-8000 cps.

2160—INPUT, 250 Drivers, $3\frac{3}{4} \times 3\frac{1}{4}$ in. Wt. $4\frac{1}{4}$ lbs. **\$9.00**

2162—INPUT, P.P. 2A3 (Auto. Bias) Drivers, $3\frac{3}{4} \times 3\frac{3}{4} \times 3\frac{1}{4}$ in. Wt. $4\frac{1}{4}$ lbs. **\$9.00**

2165—OUTPUT, 8000 ohms to 3000 and 4000 ohms, Max. D.C. in Sec. 400 ma. $5 \times 7 \times 6$ in. Wt. 20 lbs. **\$25.00**

2166—OUTPUT 2500 and 10,000 ohms. Max. D.C. in Sec. 400/200 ma. $5 \times 7 \times 6$ in. Wt. 20 lbs. **\$25.00**



203A, 838 Broadcast Type

Audio output 200 watts, Plate voltage 1000. Audio range 30-10,000 cps.

2163—INPUT, P.P. 2A3 (Fixed Bias) Drivers, $3\frac{3}{4} \times 4\frac{1}{2} \times 4\frac{3}{4}$ in. Wt. $8\frac{3}{4}$ lbs. **\$15.00**

2167—OUTPUT, 8000 ohms to load specified. Max. D.C. in Sec. 375 ma. $9 \times 8 \times 8$ in. Wt. 51 lbs. **\$55.00**

212D Type

Audio output 300 watts, Plate voltage 1700, Range 60 to 8000 cps.

2181—INPUT, P.P. 211E Drivers, $3\frac{3}{4} \times 4\frac{1}{2} \times 4\frac{3}{4}$ in., Wt. $8\frac{3}{4}$ lbs. **\$12.50**

2185—OUTPUT, 8000 ohms to 4000 and 5000 ohms, Max. D.C. in Sec. 500 ma. $9 \times 8 \times 8$ in., Wt. 51 lbs. **\$50.00**

204A, 849 Type

Audio output 600 watts. Plate voltage 2000-2500. Audio range 60-8000 cps.

2191—INPUT, P.P. 845 Drivers, $3\frac{3}{4} \times 4\frac{1}{2} \times 4\frac{3}{4}$ in. Wt. $8\frac{3}{4}$ lbs. **\$15.00**

2195—OUTPUT, 8000 ohms to 4000 and 5000 ohms. Max. D.C. in Sec. 600 ma. $9 \times 9 \times 8$ in. Wt. 65 lbs. **\$62.50**

5 Meter Transceiver Audio

214—A well designed audio with single button microphone winding in addition to Primary and Secondary having $3\frac{1}{2}$ to 1 ratio. 300 type mounting.

TYPE 214— $3 \times 2 \times 2\frac{3}{8}$ ", wt. 1 lb. 3 oz., list **\$3.00**

GRID MODULATION TRANSFORMERS

2205—For coupling a single 45, 46 or 59 to Suppressor or Control Grid. Dimensions and mounting same as type 2120.

TYPE 2205—wt. 1 lb. 3 oz., list **\$3.00**

2210—For coupling single 41, 42, 47, 2A5 or P.P. 45's or 2A3's to one or two Suppressor or Control Grids. Dimensions and mounting same as type 2140.

TYPE 2210—wt. $2\frac{1}{4}$ lbs., list **\$5.75**



Wirewound Resistors



The nickel-silver terminals are of new and improved design, making for ease of wiring. Connections are positive, eliminating all possibilities of noise. The refractory cement coating used on Hammond Resistors is permanent, highly heat conductive, and is really heat proof, making a trouble free and highly satisfactory product.

Wattage ratings of all Hammond Resistors are very conservative. The maximum temperature under full load will not exceed 250°C (482°F), where the resistor is suspended in free air. If a resistor is located near condensers or other apparatus that might be affected by heat, a resistor of higher rating should be used.

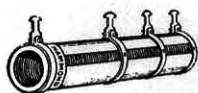
STANDARD STOCK VALUES—5% TOLERANCE

5 Watts—Tube Size 5/16 x 1 3/4 in.	
25, 50, 50 c.t., 100, 200, 250, 300, 400, 450, 500, 700, 750, 800, 1000	
1250, 1500, 2000, 2250, 2500, 3000, 3500, 4000, 4500, 5000, 6000 ohms	.45
7500, 10,000, 12,500, 14,000, 15,000, 20,000, 25,000 ohms	
10 Watts—Tube Size 1/2 x 2 in.	
Same Values as 5 Watt size	.60
15 Watts—Tube Size 1/2 x 3 in.	
Same Values as 5 Watt size	.75
25 Watts—Tube Size 1/2 x 4 in.	
Same Values as 5 Watt size	.90
50 Watts—Tube Size 3/4 x 4 in.	
25, 50, 75, 100, 200, 250, 400, 500, 750, 800, 1000, 1250, 1500 ohms	
1750, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 6000, 7500 ohms	1.20
10,000, 12,500, 15,000, 17,500, 20,000, 25,000, 30,000, 40,000, 50,000	
75 Watts—Tube Size 1 x 6 in.	
25, 50, 75, 100, 250, 400, 500, 750, 800, 1000, 1250, 1500 ohms	
1750, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 6000, 7500 ohms	1.50
10,000, 12,500, 15,000, 17,500, 20,000, 25,000, 30,000 ohms	
35,000, 40,000, 50,000, 60,000, 75,000, 100,000 ohms	
100 Watts—Tube Size 1 x 8 in.	
25, 50, 75, 100, 250, 500, 750, 1000, 1250, 1500, 2000 ohms	
2500, 3000, 3500, 4000, 5000, 6000, 7500 ohms	2.50
10,000, 12,500, 15,000, 17,500, 20,000, 25,000, 30,000 ohms	
40,000, 50,000, 60,000, 75,000, 100,000 ohms	

USE ROSIN-CORE SOLDER ONLY ON RESISTORS

Special Values not listed above can be supplied at 10c more than price listed above. Tapped Voltage Dividers can be supplied—add 10c for each tap to price listed above.

Hammond Adjustable Resistors



For experimental and other work an adjustable resistor is highly desirable. A full line is available in the following wattages and up to the maximum value shown. A new adjustable clip having a soft metal contact, eliminates to a large extent the danger of wire breaking in this type of resistor.

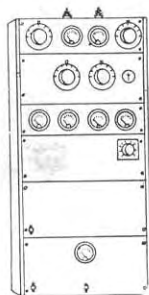
25 Watt, Standard Values up to 7500 ohms	\$1.50
50 Watt, Standard Values up to 15000 ohms	1.80
75 Watt, Standard Values up to 25000 ohms	2.20
100 Watt, Standard Values up to 50000 ohms	3.50
Extra Clips	10c

Racks and Panels

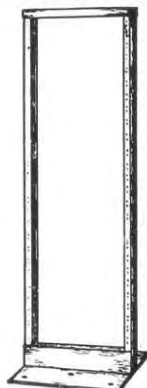
PANELS

3/16 in. ALUMINUM, 19 in. wide notched for standard racks. These blank panels are of correct hardness for stiffness and easy drilling and are not painted or otherwise finished.

1471—1 3/4 in. 1 rack unit	\$1.10
1472—3 1/2 in. 2 rack units	1.55
1473—5 1/4 in. 3 rack units	2.10
1474—7 in. 4 rack units	2.75
1475—8 3/4 in. 5 rack units	3.10
1476—10 1/2 in. 6 rack units	3.80
1477—12 1/4 in. 7 rack units	4.45



1462—Steel Transmitter Cabinet with steel subpanels and 3/16 aluminum front panels with dull black sand-blasted finish. All meter, socket and transformer mounting holes punched. Meter panel engraved. For 50 watt phone transmitter. (Ask for circuits 1220-23.) Height 45 3/4". width 19". Weight 53 lbs. **\$38.00**

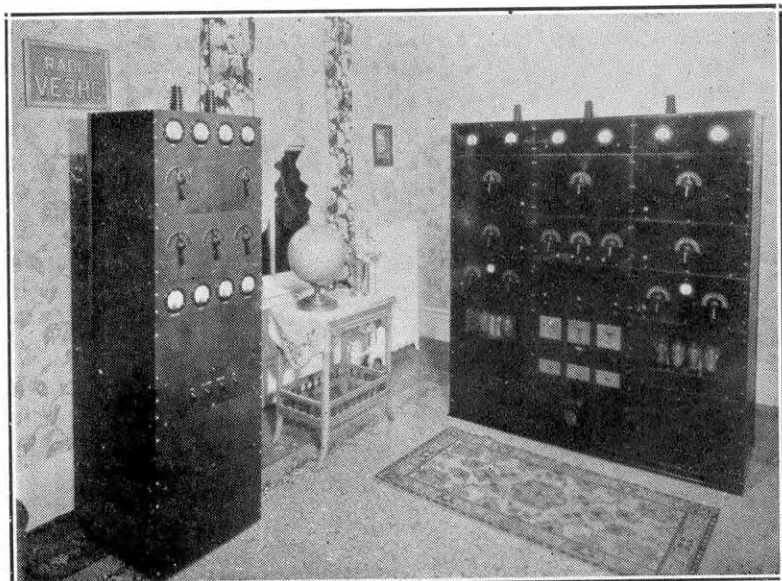


1466—Standard Rack, 69 1/8 in. high overall, 36 rack-units, electrically welded steel, accurately drilled and tapped for 10/32 screws at 1 1/4-1/2 inch centres for all standard panels. Finished in flat black. 20 in. wide, 15 in. deep, 69 1/8 in. high, net weight 96 lbs. **\$33.00**

1467—83 in. high overall, 44 rack-units, same construction as type 1466. net weight 100 lbs. **\$40.00**

1463—Steel Cabinet for Transmitters, less front panels, but with fine subpanels. For four stage R.F. and Class B Modulated Phone Transmitter with power supplies. Finished in black duco. Front panel space 19x63", depth 16". Weight 65 lbs. **\$30.00**

V
E
3
H
C



Where experimental work on the new Hammond Transmitting Equipment is carried out under actual operating conditions.

