

JEFFERSON RADIO TRANSFORMERS AND CHOKES



JEFFERSON
RADIO
TRANSFORMERS

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JEFFERSON ELECTRIC COMPANY
BELLWOOD (Suburb of Chicago) ILLINOIS



JEFFERSON ELECTRIC COMPANY

Bellwood ~ Illinois

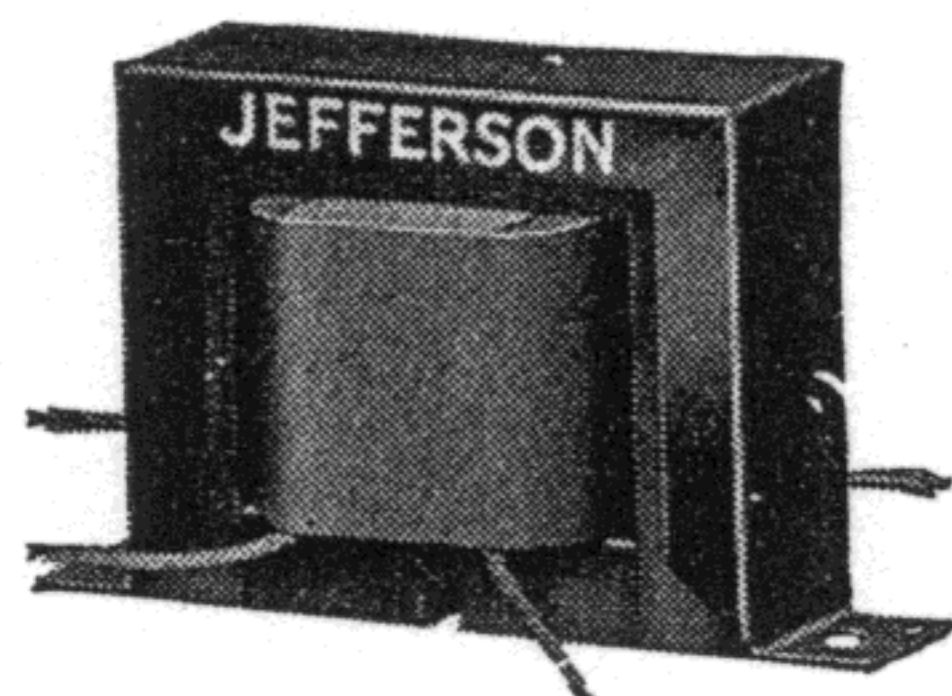
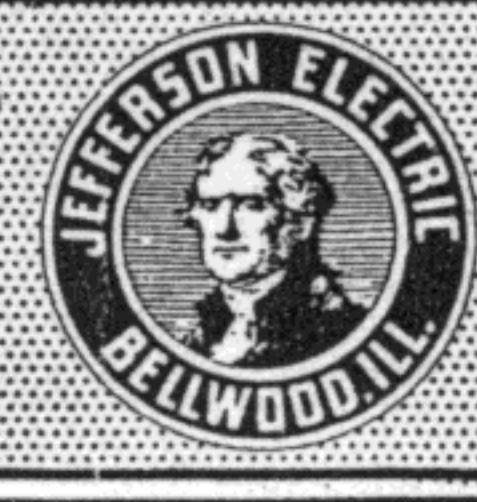


Fig. 7A

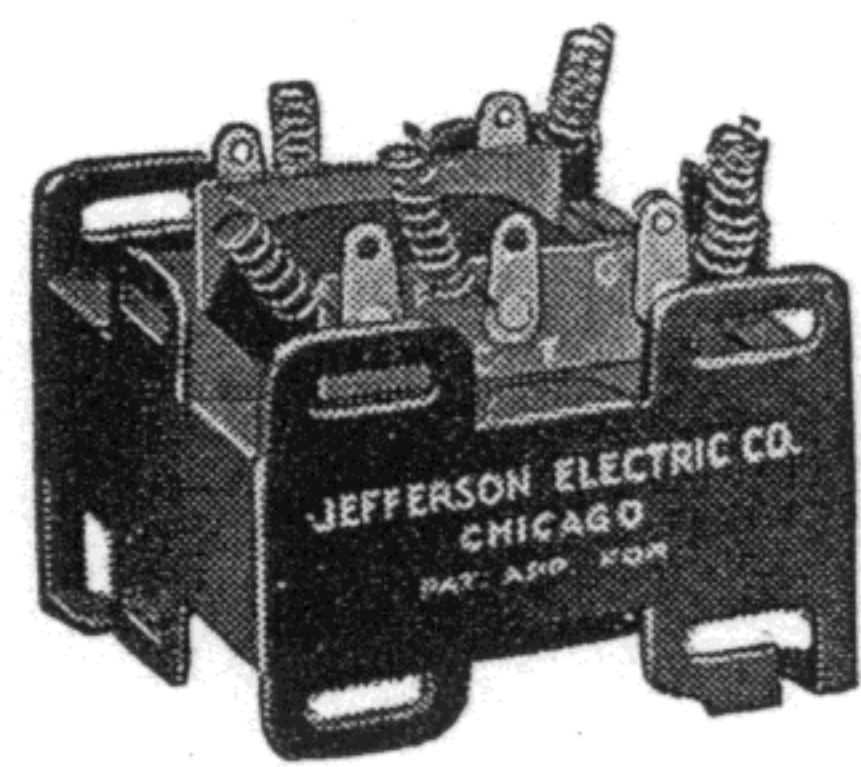


Fig. 7B

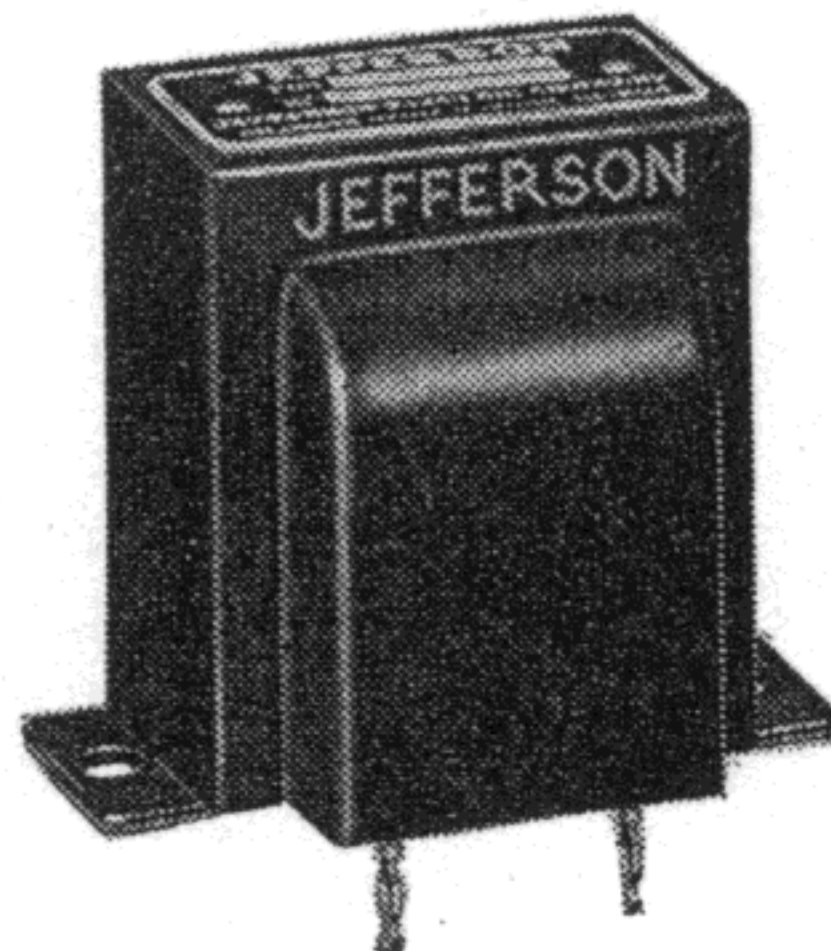


Fig. 7C

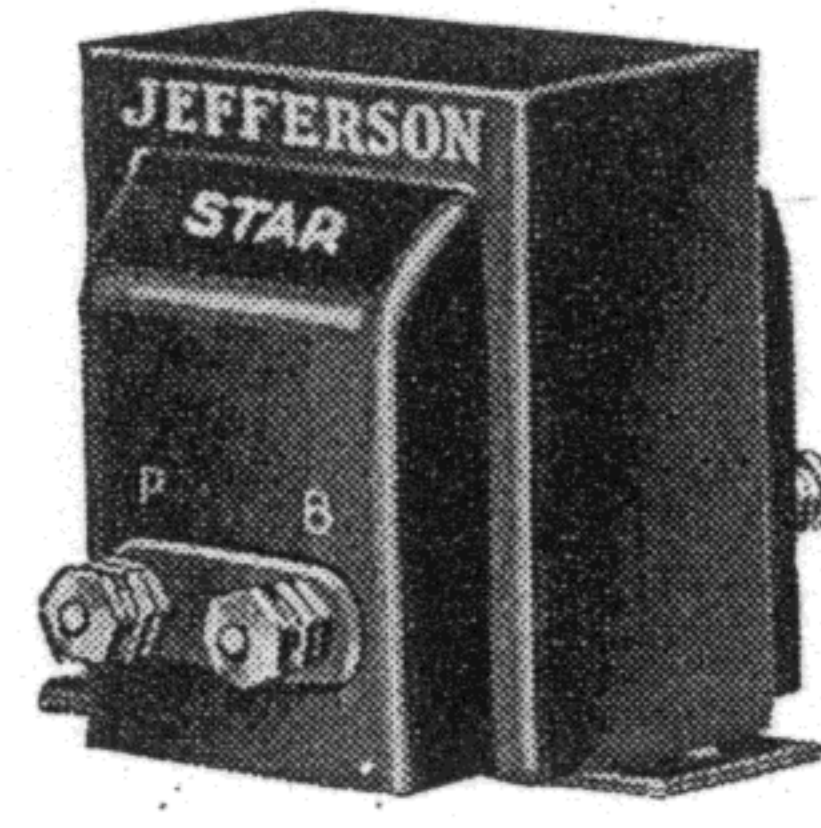


Fig. 7D

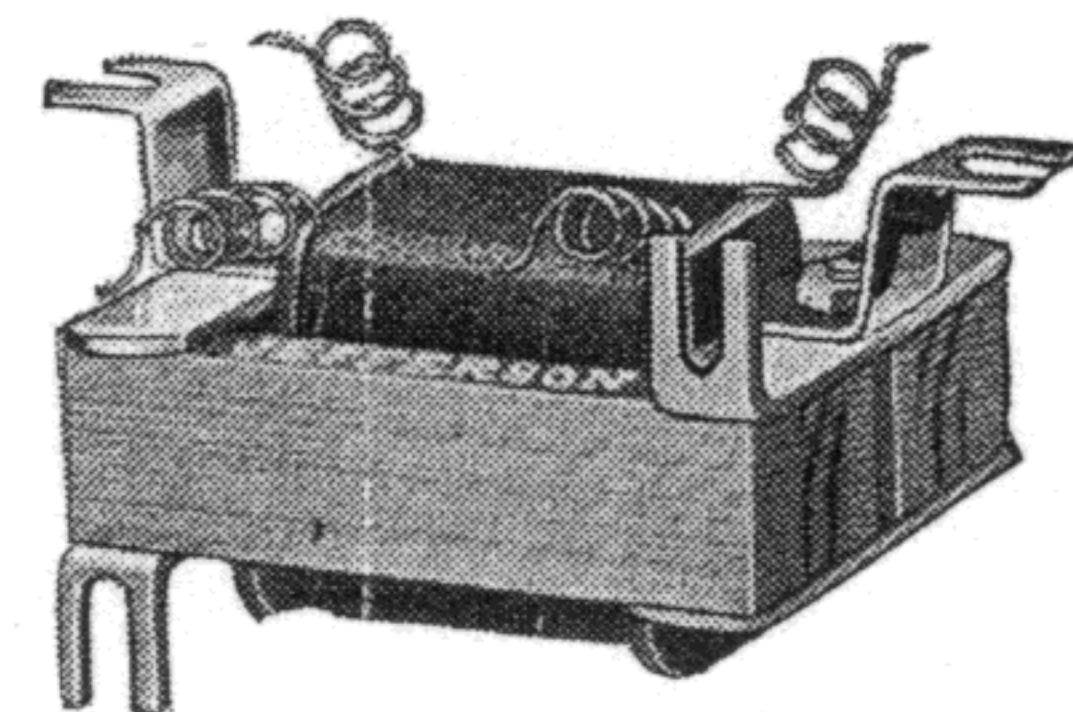


Fig. 7E

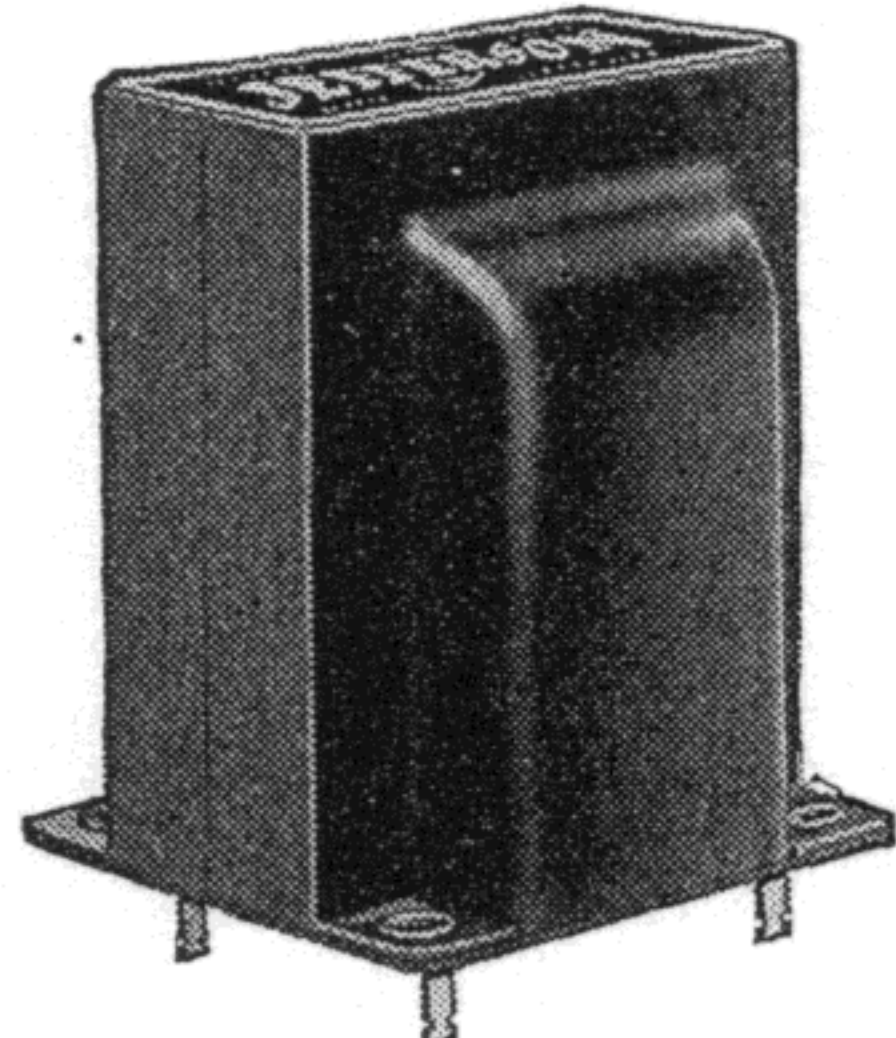


Fig. 7F

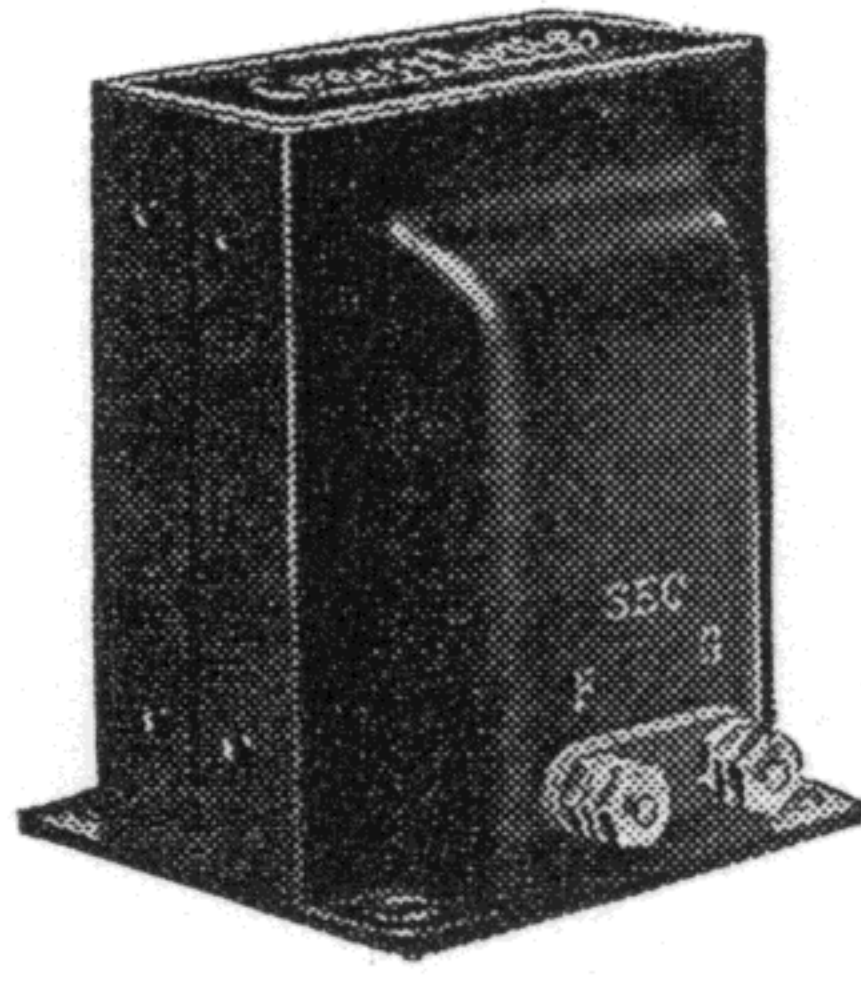


Fig. 7G

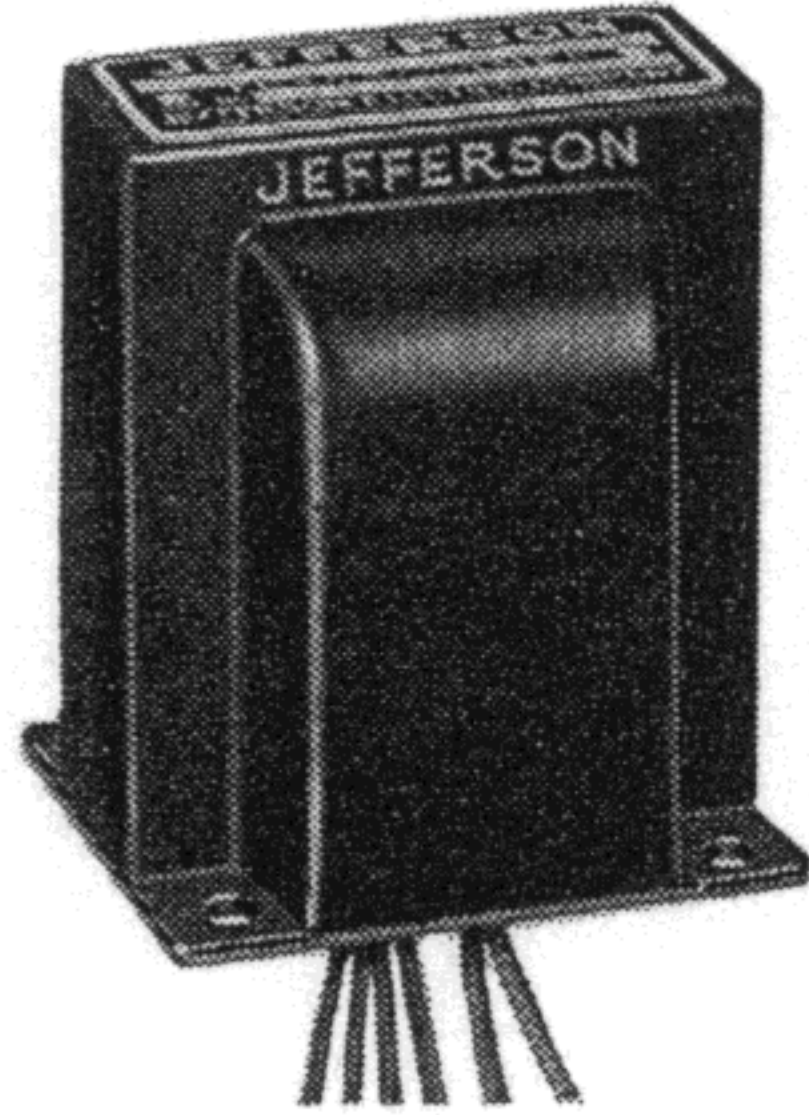


Fig. 7H



Fig. 7J

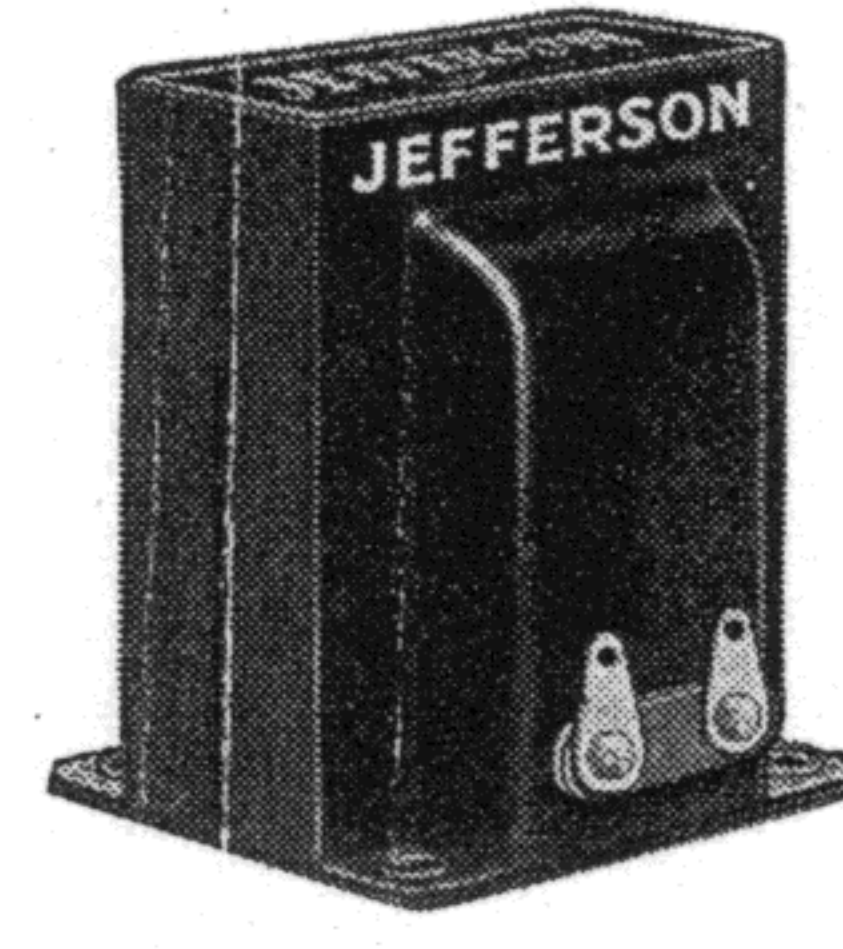


Fig. 7K

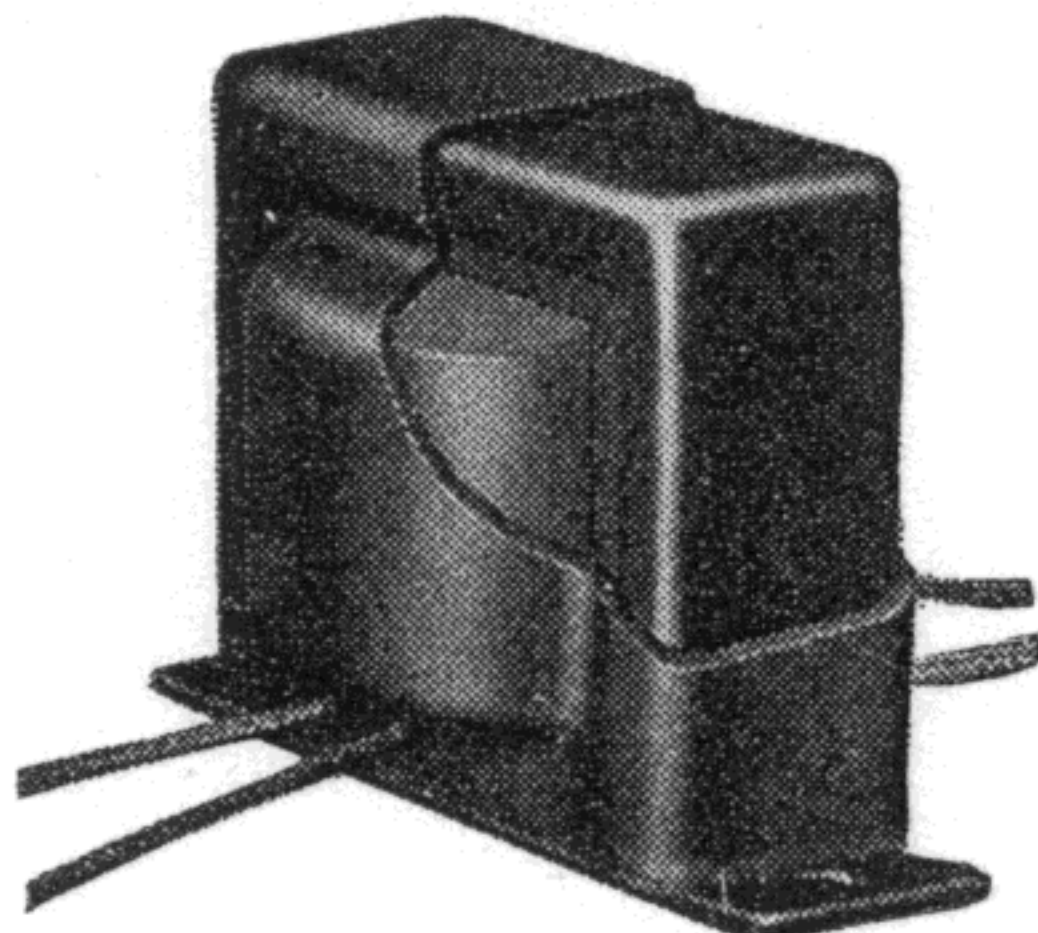


Fig. 7L



Fig. 7M



Fig. 7N

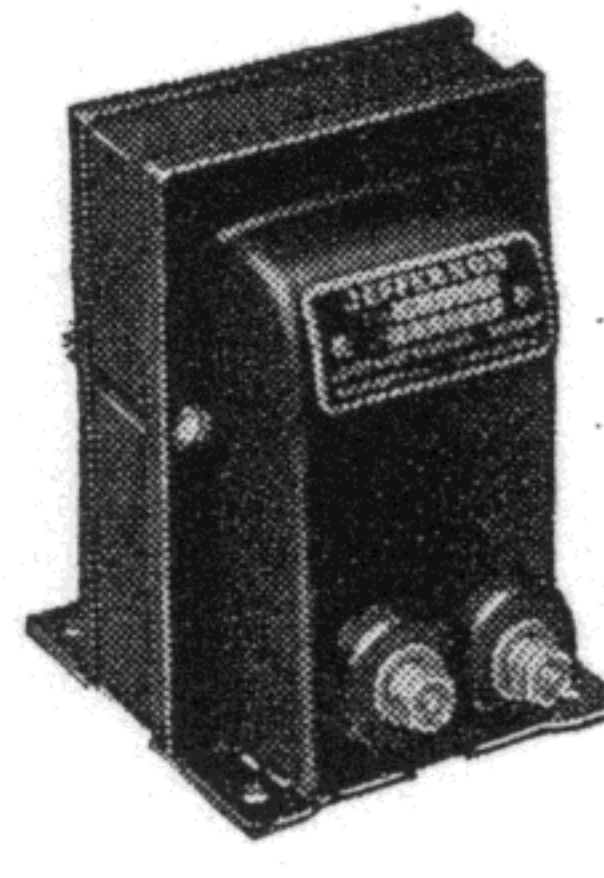


Fig. 7P

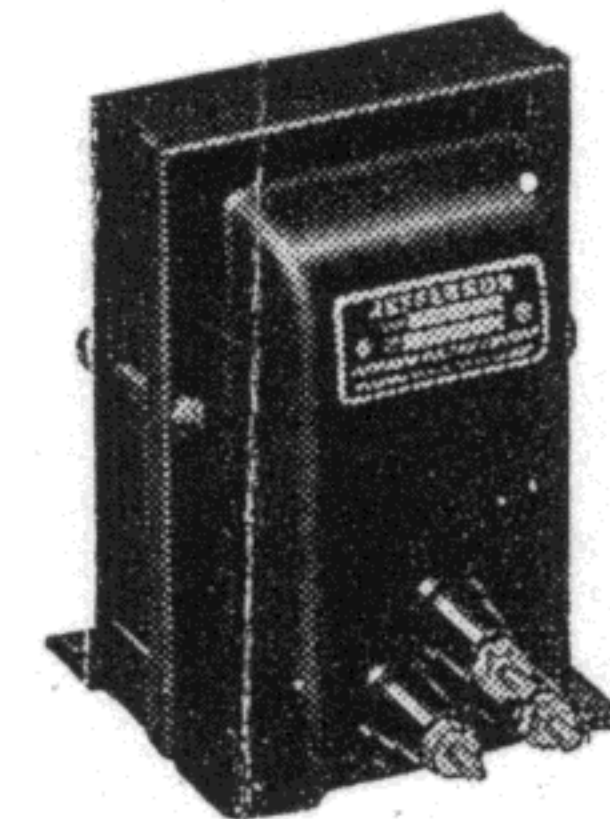


Fig. 7Q

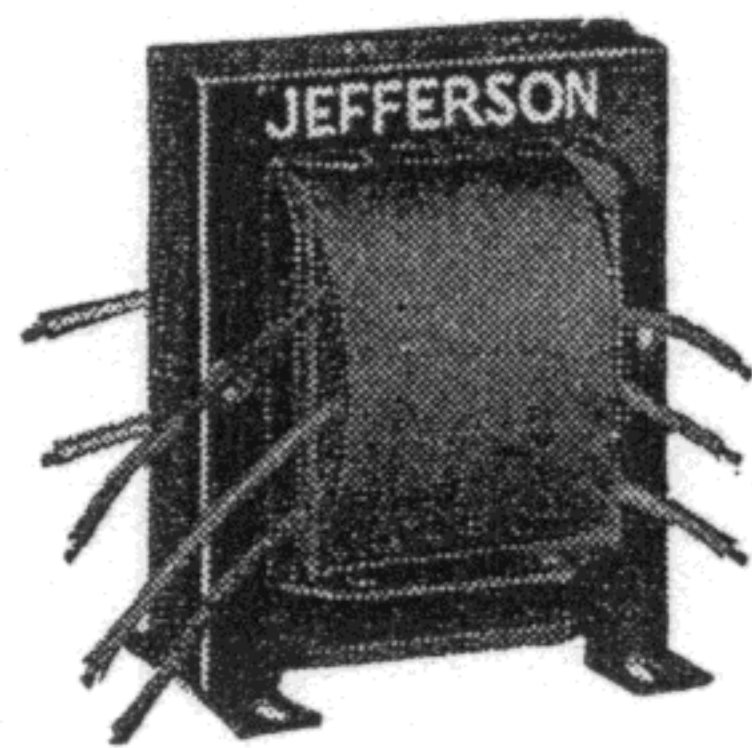


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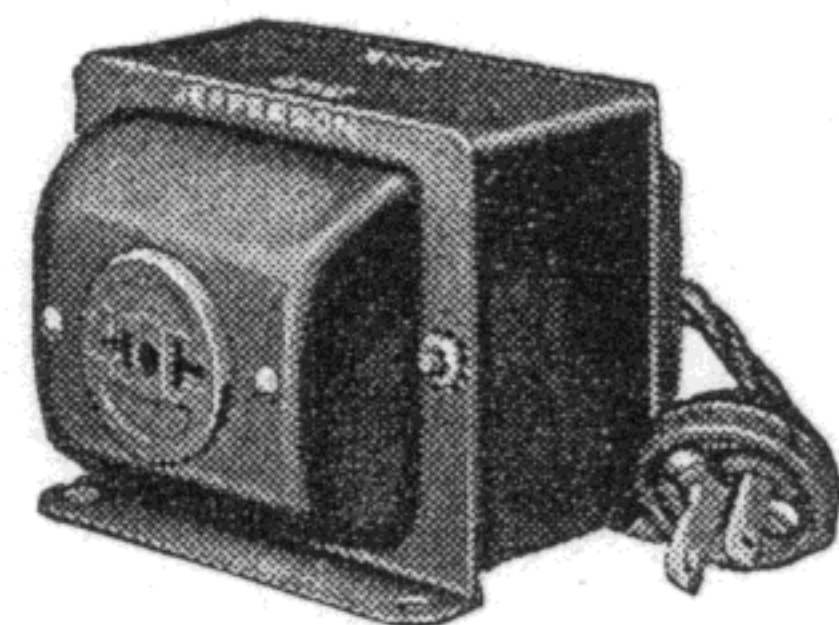


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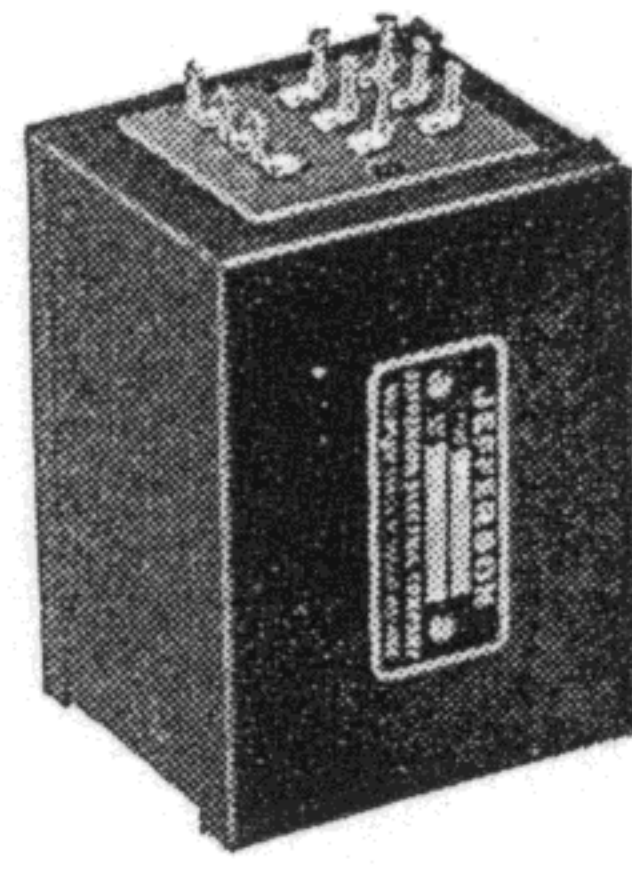


Fig. 7T



Fig. 7U

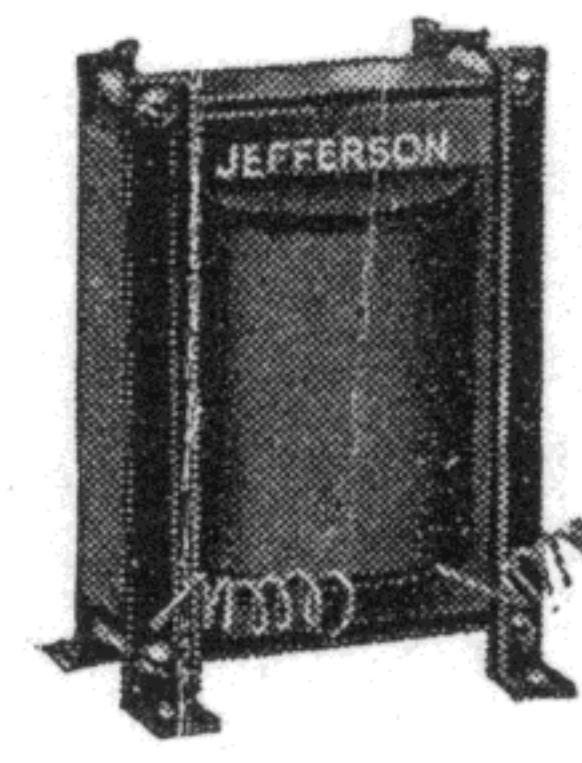


Fig. 7W

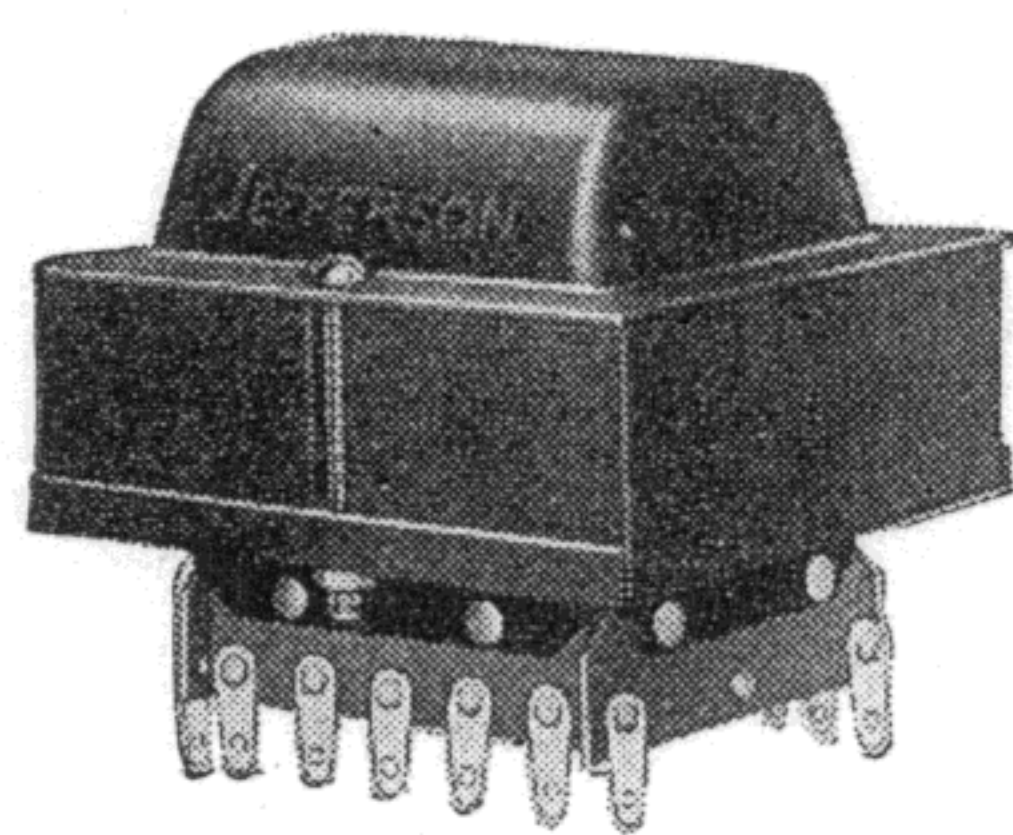


Fig. 7X

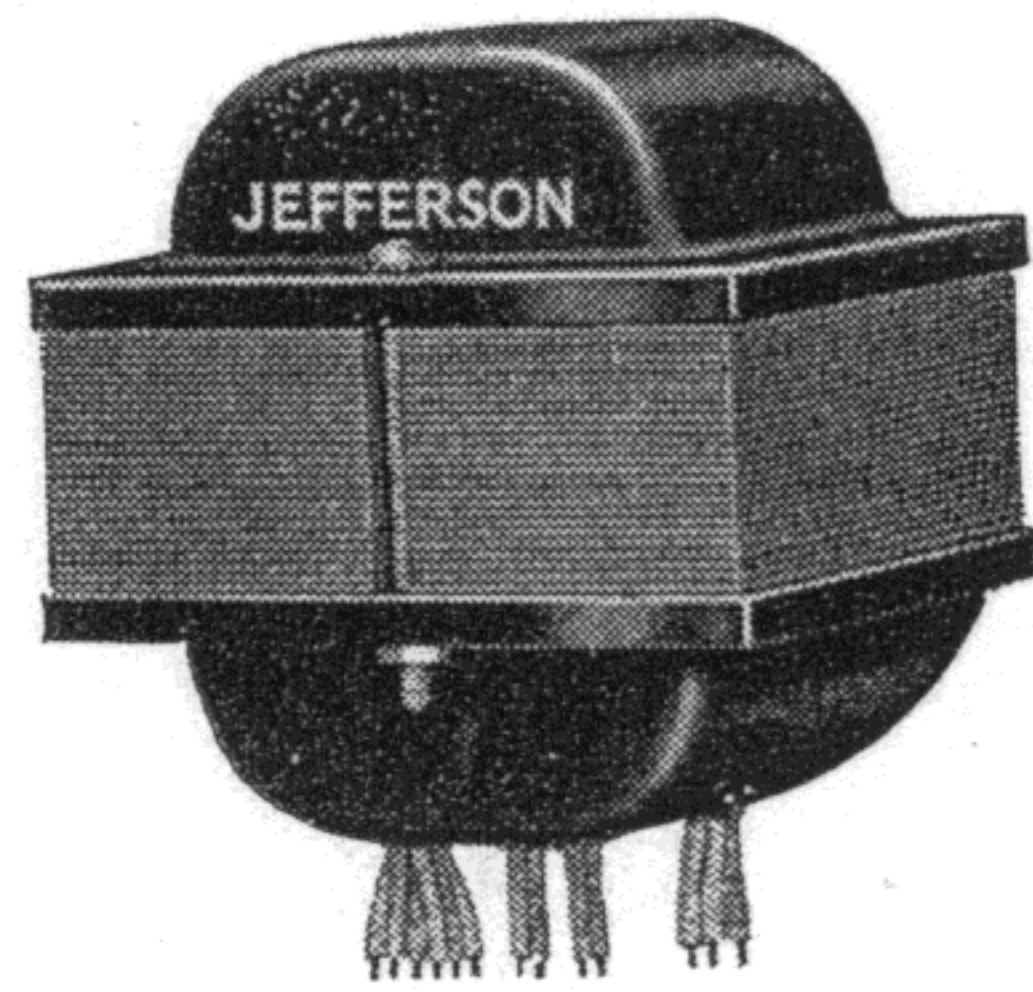


Fig. 7Y

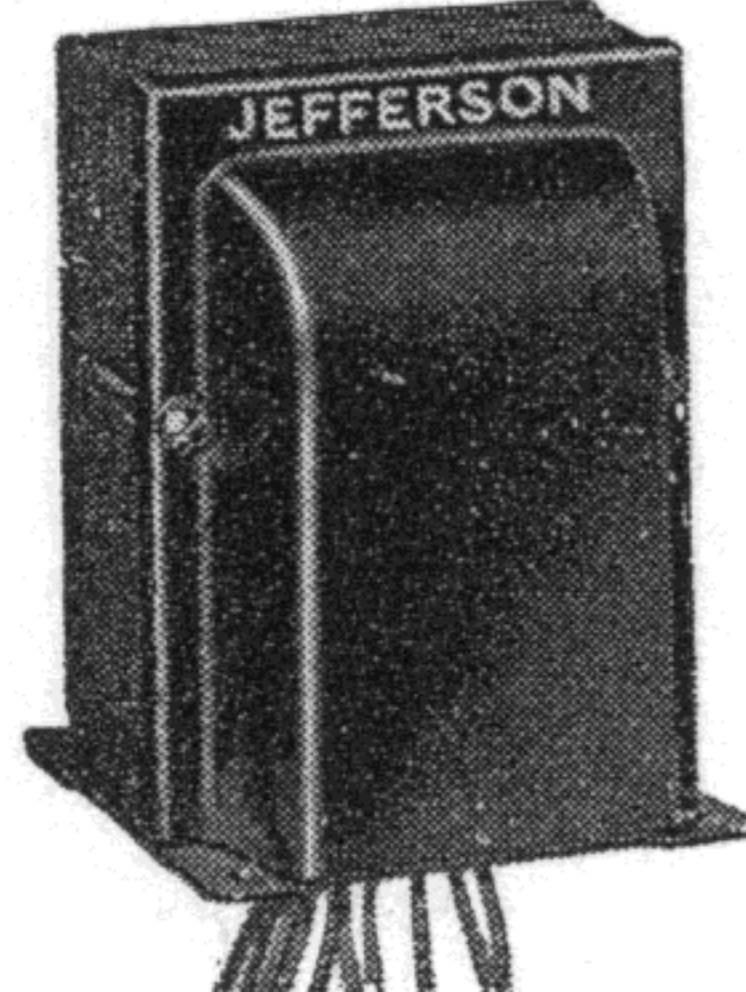


Fig. 7Z

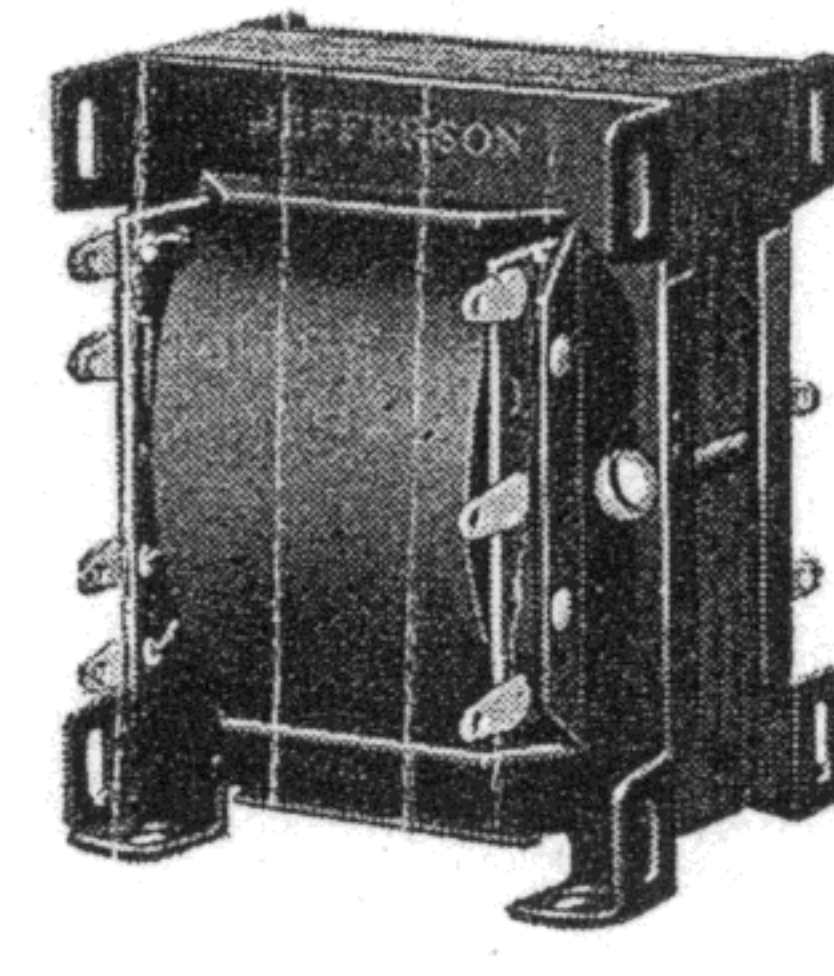


Fig. 7AA



Fig. 7BB

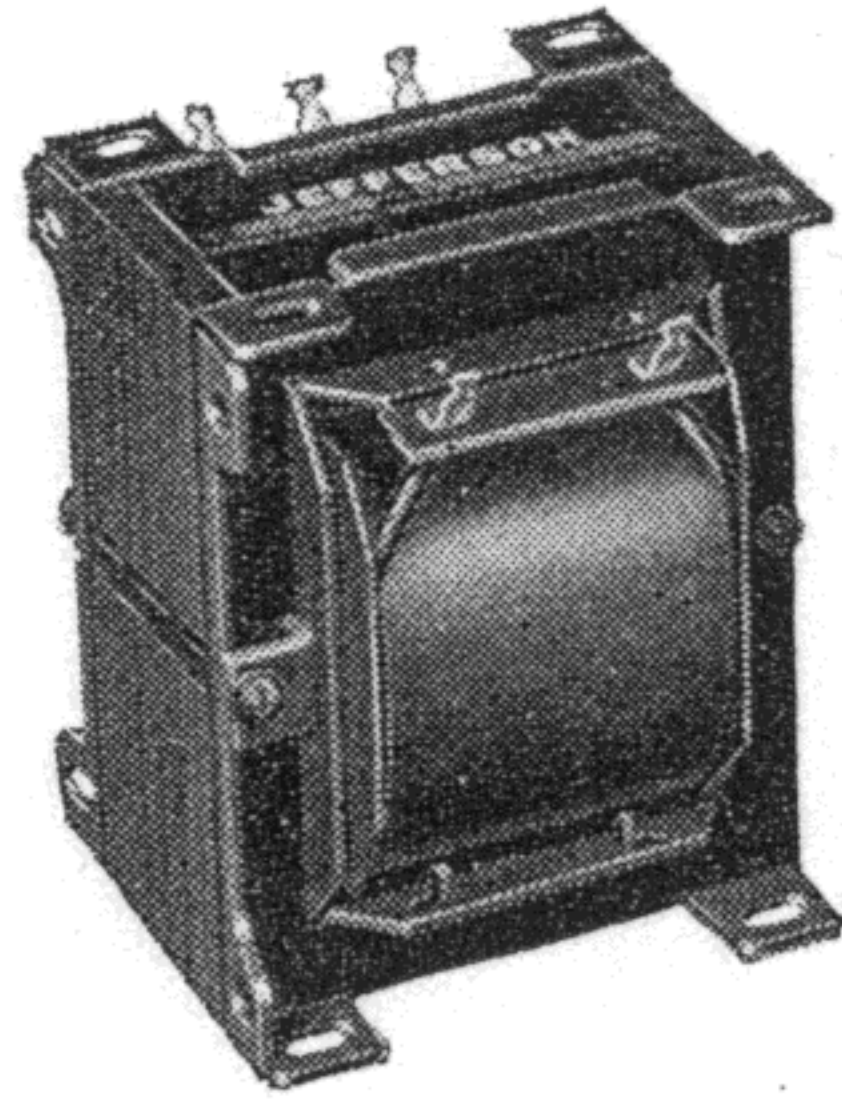


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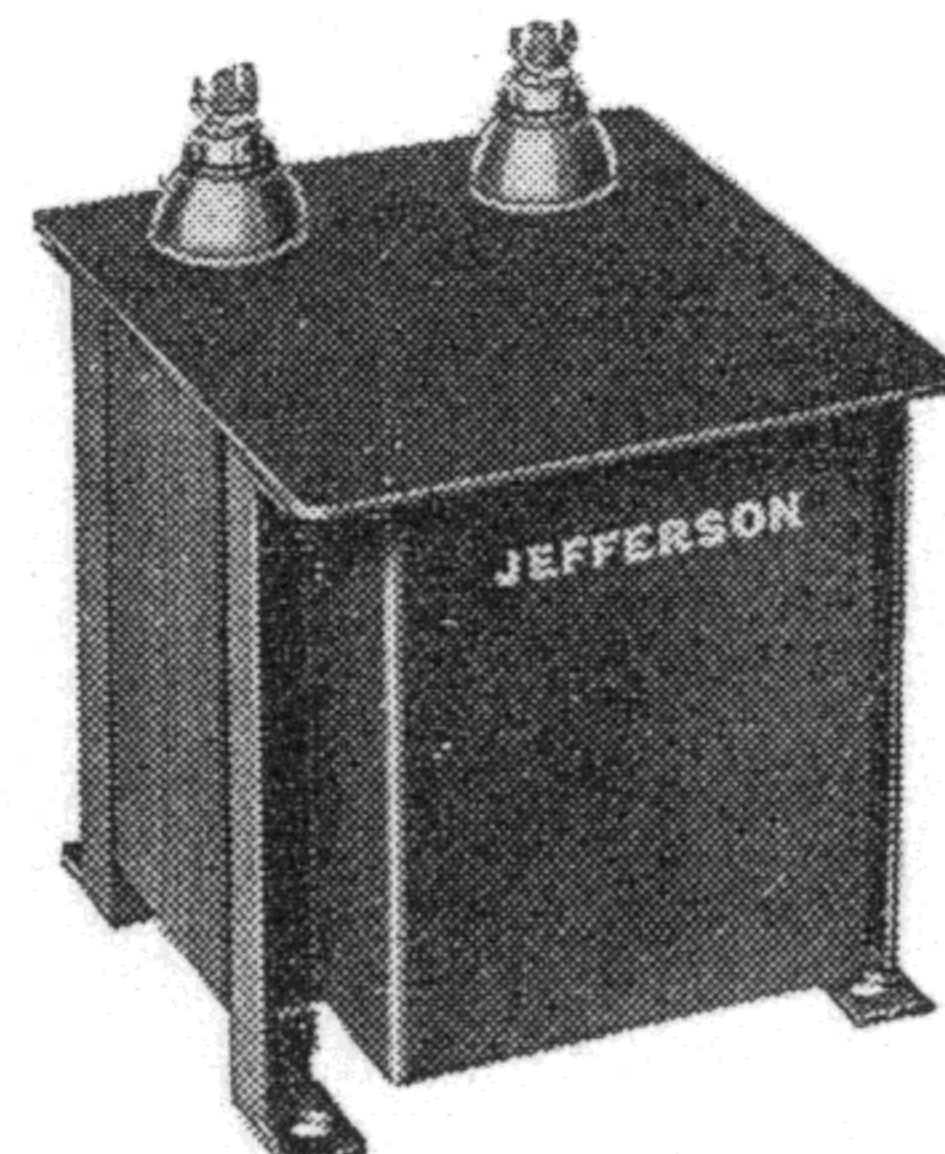


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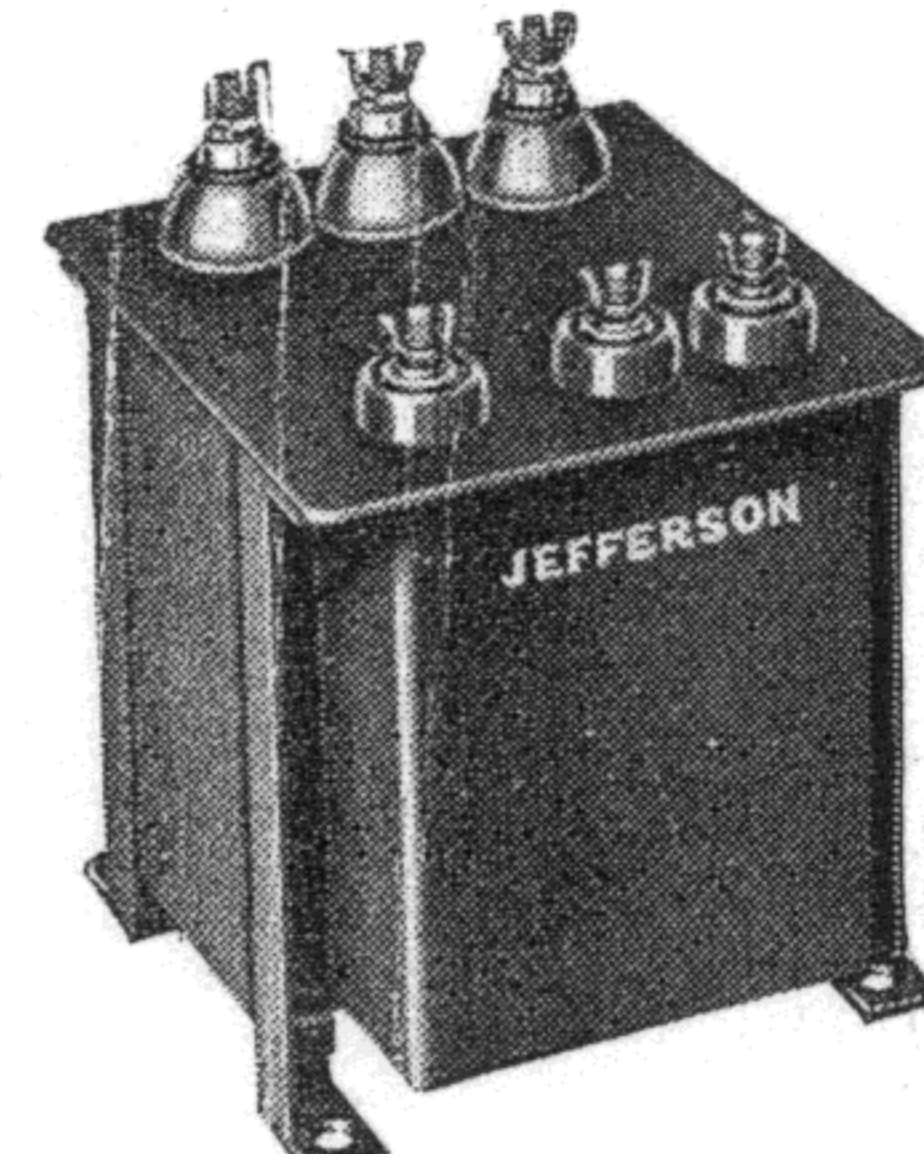


Fig. 7EE



MICROPHONE TRANSFORMERS

A complete line of single, double button, and ribbon (or velocity) type microphone transformers. They are constructed of the highest quality parts and designed for practically any requirement. The "7A" series is bracket mounted and suitable for use in tranceivers or other places where space and weight are limited. The "7D" and "7G" series are of superior quality, completely shielded and compound filled, making them impervious to moisture and deterioration. These units are designed to have a flat frequency response over the normal audio frequency range.

The "ENCASED" type double button and matching transformer is constructed with an alloy core and balanced "hum-bucking" windings. With careful placement this unit may be mounted on or near a high gain amplifier with virtually no hum or extraneous noise pickup. The frequency response characteristic is virtually flat in all of its applications.

SINGLE BUTTON MICROPHONE TRANSFORMERS

Catalog No.	Series	Style Mtg.	* For Coupling	Size	Weight, Lbs.	List Price
467-439	Open	7A	Telephone Mike (75 ohms) to Grid	3 $\frac{1}{4}$ "x1 $\frac{7}{8}$ "x2"	1	\$1.60
467-413	Open	7A	Single Button (200 ohms) to Grid	3 $\frac{1}{4}$ "x1 $\frac{7}{8}$ "x2"	1	1.60
467-261	Shielded	7D	Single Button (200 ohms) to Grid	2 $\frac{7}{8}$ "x3"x2 $\frac{1}{2}$ "	1 $\frac{1}{2}$	2.25

DOUBLE BUTTON MICROPHONE TRANSFORMERS

467-414	Open	7A	Double Button (200-0-200) to Grid	3 $\frac{1}{4}$ "x1 $\frac{7}{8}$ "x2"	1	\$1.75
467-263	Shielded	7D	Double Button (200-0-200) to Grid	2 $\frac{7}{8}$ "x3"x2 $\frac{1}{2}$ "	1 $\frac{1}{2}$	2.50
467-262	Shielded	7K	Double Button (200-0-200) to Grid	2 $\frac{3}{4}$ "x3 $\frac{1}{8}$ "x3 $\frac{1}{8}$ "	2 $\frac{1}{2}$	3.50
467-421	Encased	7T	Double Button (200-0-200) to Grid	2 $\frac{3}{4}$ "x2 $\frac{3}{8}$ "x4 $\frac{1}{8}$ "	2 $\frac{1}{2}$	8.00
467-430	Shielded	7D*	Double Button to Line 50/200/500 ohms	2 $\frac{7}{8}$ "x2 $\frac{3}{4}$ "x2 $\frac{1}{2}$ "	1 $\frac{1}{4}$	2.65
467-432	Shielded	7J	Double Button to Line 50/200/500 ohms	3 $\frac{3}{4}$ "x3 $\frac{3}{8}$ "x3 $\frac{1}{8}$ "	2 $\frac{3}{4}$	4.00

VELOCITY MIKE TRANSFORMERS

467-429	Open	7A	Velocity (Ribbon) to 50/200 ohms	2 $\frac{7}{8}$ "x1 $\frac{5}{8}$ "x1 $\frac{3}{4}$ "	$\frac{1}{2}$	\$1.40
467-431	Shielded	7D	Velocity (Ribbon) to 50/200 ohms	2 $\frac{7}{8}$ "x3"x2 $\frac{1}{2}$ "	1 $\frac{1}{3}$	2.50

LINE AND MIXING TRANSFORMERS

Jefferson line and mixing transformers are designed to couple and mix with very little loss or attenuation, numerous types of sound sources to the input of an amplifier. The complete set consists of line to grid, line to line, and pickup to grid transformers. These units are furnished in four size ranges and types of mountings.

Each unit has a frequency response correspondingly flat in accordance with the "SERIES" listing of "7A," "7D," "7J," and "7T." The 467-421 is the same unit as listed in microphone transformers. It may be used not only as a microphone transformer but to couple various lines to a single grid as listed below.

LINE TO GRID TRANSFORMERS (Low Level)

467-433	Open	7A	50/200 ohms to Grid	2 $\frac{7}{8}$ "x1 $\frac{5}{8}$ "x1 $\frac{3}{4}$ "	$\frac{1}{2}$	\$1.60
467-178	Shielded	7D*	200/500 ohms to Single or P.P. Grids	2 $\frac{7}{8}$ "x3"x2 $\frac{1}{2}$ "	1 $\frac{1}{2}$	2.50
467-436	Shielded	7J	50/200/500 ohms to S. or P.P. Grids	2 $\frac{3}{4}$ "x3"x3 $\frac{1}{8}$ "	2 $\frac{1}{3}$	4.00
467-181	Shielded	7D	Low Impedance Pickup to Single Grid	2 $\frac{7}{8}$ "x2 $\frac{5}{8}$ "x2 $\frac{1}{2}$ "	1	2.00
467-421	Encased	7T	50/100/200/400 ohms to Single Grid	2 $\frac{3}{4}$ "x2 $\frac{3}{8}$ "x4 $\frac{1}{8}$ "	2 $\frac{1}{2}$	8.00

LINE TO LINE TRANSFORMERS (Low Level)

467-434	Open	7A	50/200 ohms to 50/200 ohms	2 $\frac{7}{8}$ "x1 $\frac{5}{8}$ "x1 $\frac{3}{4}$ "	$\frac{1}{2}$	\$1.60
467-435	Shielded	7D*	50/200/500 ohms to 50/200/500 ohms	2 $\frac{7}{8}$ "x2 $\frac{3}{4}$ "x2 $\frac{1}{2}$ "	1 $\frac{1}{4}$	2.50
467-437	Shielded	7J	50/200/500 ohms to 50/200/500 ohms	2 $\frac{7}{8}$ "x2 $\frac{3}{4}$ "x3 $\frac{1}{8}$ "	2 $\frac{1}{2}$	4.00

*Solder lugs in place of terminals.

Audio and Push Pull Input Transformers

Jefferson audio and coupling transformers are available in several sizes, ratios, and mountings at corresponding price ranges to provide the best results in all sound fields and to meet all popular requirements. The "7C," "7D," "7F," "7G," and "7K" series are completely shielded and the cases are filled with a sealing compound to protect the windings from moisture and deterioration.

Primaries are designed for working out of tubes having approximately 10,000 ohms plate resistance.

AUDIO TRANSFORMERS (INTERSTAGE)

A complete line of audio transformers for coupling ONE plate to ONE grid (Class A) suitable for coupling the plate of a 26, 27, 30, 37, 55, 56 (76), 75, 85, 199, 2B7, 201A, 6B7, 6C5, and similar type tubes to the grid of a 26, 27, 30, 37, 55, 56 (76), 85, 199, 201A, 2B7, 6B7, 45, 71A, 47, 50, 10, 41, 42, 43, 48, 2A5, 31, 33, 38 and Class A 46, 59, 89; etc. tube.

Catalog No.	Series	Style Mtg.	Overall Ratio	Response at 100 Cycles	Size	Weight, Lbs.	List Price
467-164	Universal	7E	1 to 2	Down 5 D.B.	3 ⁵ / ₁₆ "x1 ⁹ / ₁₆ "x2 ⁵ / ₁₆ "	3/4	\$1.25
467-401	Open	7A	1 to 2	Down 5 D.B.	2 ⁷ / ₈ "x1 ⁵ / ₈ "x1 ³ / ₄ "	1/2	1.35
467-403	Open	7A	1 to 3	Down 3 D.B.	3 ¹ / ₄ "x1 ⁷ / ₈ "x2"	1	1.60
467-405	Open	7A	1 to 4	Down 3.5 D.B.	3 ¹ / ₄ "x2 ¹ / ₈ "x2"	1 ¹ / ₄	1.75
467-407	Open	7A	1 to 2	Down 2 D.B.	4"x2 ¹ / ₈ "x2 ¹ / ₂ "	2	2.25
467-113	Shielded	7D	1 to 3	Down 3 D.B.	2 ⁷ / ₈ "x2 ⁷ / ₈ "x2 ¹ / ₂ "	1 ¹ / ₄	2.25
467-116	Shielded	7D	1 to 5	Down 4 D.B.	2 ⁷ / ₈ "x2 ⁷ / ₈ "x2 ¹ / ₂ "	1 ¹ / ₄	2.25
467-427	Shielded	7C	1 to 4	Down 3.5 D.B.	2 ⁷ / ₈ "x2 ¹ / ₈ "x2 ⁵ / ₁₆ "	1 ¹ / ₃	2.25
467-103	Shielded	7G	1 to 3	Down 2 D.B.	2 ³ / ₄ "x3 ¹ / ₈ "x3 ¹ / ₈ "	2 ¹ / ₂	3.00

PLASTIC-SEALED AUDIO TRANSFORMERS (INTERSTAGE)

A Plastic Coating of high melting point, black, moisture-proof compound permanently adheres to and seals all exposed surfaces and assures positive protection from adverse climatic conditions. This coating is not brittle and, therefore, will not crack to allow absorption and condensation of moisture to endanger the useful life of the windings.

467-501	Pla. Sld.	7L	1 to 2	Down 5 D.B.	2 ⁷ / ₈ "x1 ⁵ / ₈ "x1 ⁷ / ₈ "	3/4	\$1.55
467-507	Pla. Sld.	7L	1 to 2	Down 2 D.B.	4"x2 ¹ / ₈ "x2 ⁵ / ₈ "	2 ¹ / ₃	2.45
467-503	Pla. Sld.	7L	1 to 3	Down 3 D.B.	3 ¹ / ₄ "x1 ⁷ / ₈ "x2 ¹ / ₈ "	1 ¹ / ₄	1.80
467-505	Pla. Sld.	7L	1 to 4	Down 3.5 D.B.	3 ¹ / ₄ "x2 ¹ / ₈ "x2 ¹ / ₈ "	1 ⁵ / ₈	1.95

PUSH PULL INPUT TRANSFORMERS

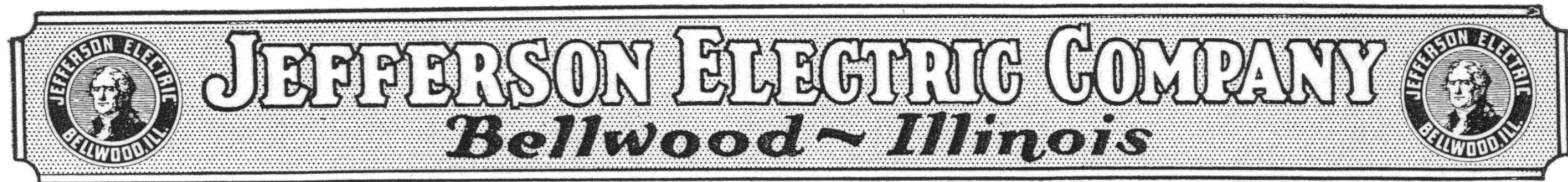
For coupling ONE plate to Push Pull grids (Class A) suitable for use with the same types of tubes listed for audio transformers above. Included are three universal types, two sizes in different mountings. These are particularly well adapted to service use permitting a choice of winding ratios as well as mountings.

467-402	Open	7A	1 to 2	Down 5 D.B.	2 ⁷ / ₈ "x1 ⁵ / ₈ "x1 ³ / ₄ "	1/2	\$1.50
467-404	Open	7A	1 to 3	Down 3 D.B.	3 ¹ / ₄ "x1 ⁷ / ₈ "x2"	1	1.75
467-406	Open	7A	1 to 4	Down 3.5 D.B.	3 ¹ / ₄ "x2 ¹ / ₈ "x2"	1 ¹ / ₄	2.00
467-408	Open	7A	1 to 4	Down 2 D.B.	4"x2 ¹ / ₈ "x2 ¹ / ₂ "	2	2.50
467-117	Shielded	7D*	1 to 3	Down 3 D.B.	2 ⁷ / ₈ "x2 ⁷ / ₈ "x2 ¹ / ₂ "	1	2.35
467-118	Shielded	7C	1 to 3	Down 3 D.B.	2 ⁷ / ₈ "x2 ¹ / ₈ "x2 ¹ / ₂ "	1 ¹ / ₄	2.50
467-418	Shielded	7D*	1 to 3	Down 2 D.B.	2 ⁷ / ₈ "x3"x2 ¹ / ₂ "	1 ¹ / ₂	2.50
467-106	Shielded	7F	1 to 4	Down 2 D.B.	2 ³ / ₄ "x2 ⁵ / ₈ "x3 ¹ / ₈ "	2 ¹ / ₃	3.00
467-105	Shielded	7K	1 to 4	Down 2 D.B.	2 ³ / ₄ "x3"x3 ¹ / ₈ "	2 ¹ / ₂	3.00

*Solder lug terminals.

PLASTIC-SEALED PUSH PULL INPUT TRANSFORMERS

467-502	Pla. Sld.	7L	1 to 2	Down 5 D.B.	2 ⁷ / ₈ "x1 ⁵ / ₈ "x1 ⁷ / ₈ "	3/4	\$1.70
467-504	Pla. Sld.	7L	1 to 3	Down 3 D.B.	3 ¹ / ₄ "x1 ⁷ / ₈ "x2 ¹ / ₈ "	1 ¹ / ₄	1.95
467-506	Pla. Sld.	7L	1 to 4	Down 3.5 D.B.	3 ¹ / ₄ "x2 ¹ / ₈ "x2 ¹ / ₈ "	1 ¹ / ₂	2.20
467-508	Pla. Sld.	7L	1 to 4	Down 2 D.B.	4"x2 ¹ / ₈ "x2 ⁵ / ₈ "	2 ¹ / ₃	2.70



UNIVERSAL TAPPED INPUTS

Catalog No.	Series	Style Mtg.	Overall Ratio	Frequency Response	Size	Weight, Lbs.	List Price
467-168	Universal	7B	1 to 3	-3 D.B. at 100 cycles	2 ³ / ₈ " x 2 ¹ / ₈ " x 2"	1	\$2.00
467-175	Universal	7B	1 to 3	-2.7 D.B. at 100 cycles	2 ³ / ₈ " x 2 ¹ / ₄ " x 2"	1 ¹ / ₃	2.25
467-424	Universal	7A	1 to 3	-2.7 D.B. at 100 cycles	2 ⁷ / ₈ " x 2 ¹ / ₄ " x 2 ³ / ₈ "	1 ¹ / ₃	2.20

PUSH-PULL INTERSTAGE TRANSFORMERS

Catalog No.	Shielded	Style Mtg.	Overall Ratio	Frequency Response	Size	Weight, Lbs.	List Price
467-420	Shielded	7F	1 to 2	-3 D.B. at 100 cycles	2 ³ / ₄ " x 2 ¹ / ₂ " x 3 ³ / ₄ "	2 ¹ / ₃	\$3.25
467-454	Encased	7U	1 to 4	±2 D.B. 30 to 10,000 cycles	2 ³ / ₄ " x 2 ³ / ₈ " x 3 ³ / ₄ "	2 ³ / ₄	5.00

DRIVER TRANSFORMERS

Liberal designed transformers to efficiently couple Class "A" driver stage to Class "AB" or Class "B" stage. Designed to give maximum regulation when the input resistance of the driven stage varies from a few hundred ohms to thousands of ohms.

CLASS "AB" DRIVERS

Transformers designed to couple Class "A" tubes to Class "AB" tubes which present a load to the driver stage during a small portion of the positive excursions of the signal voltage.

Catalog No.	Style Mtg.	FOR COUPLING		Size	Weight, Lbs.	List Price
		Pri. Class "A"	Sec. Class "AB"			
467-415	7J	P.P. 56's (76's)	P.P. 2A3's	2 ³ / ₄ " x 2 ⁷ / ₈ " x 3 ¹ / ₈ "	2 ¹ / ₂	\$3.00
467-455	7H	P.P. 56's (76's)	P.P. 2A3's	2 ³ / ₄ " x 2 ⁷ / ₈ " x 3 ¹ / ₈ "	2 ¹ / ₂	3.00
467-422	7F	Single 59	P.P.P. 45's	2 ³ / ₄ " x 2 ¹ / ₂ " x 3 ¹ / ₈ "	2 ¹ / ₂	4.50
467-528	7Z	P.P. 6F6's or 42's	P.P. or P.P.P. Cl. AB ₂ 6L6's	2 ³ / ₄ " x 2 ¹ / ₂ " x 3 ¹ / ₈ "	2 ¹ / ₂	3.50
467-461	7F	Single 6F6	P.P. 6F6's	2 ³ / ₄ " x 2 ¹¹ / ₁₆ " x 3 ¹ / ₈ "	2 ¹ / ₂	3.00

CLASS "B" DRIVERS

Transformers designed to efficiently couple a Class "A" or Class "AB" driver stage to Class "B" output tubes. Class "B" tubes present a load to the driver stage during the greater portion of the positive excursions of the input voltage and, therefore, consume more power than tubes operated Class "AB."

Catalog No.	Style Mtg.	FOR COUPLING		Size	Weight, Lbs.	List Price
		Pri. Class "A"	Sec. Class "B"			
467-458	7A	Single 30 (56)	Single 19	2 ⁷ / ₈ " x 1 ⁵ / ₈ " x 1 ³ / ₄ "	1/2	\$1.50
467-449	7A	Single 30 (56)	Single 19	3 ¹ / ₄ " x 1 ⁷ / ₈ " x 2"	1	2.25
467-448	7A	Single 56 (6A6, 53)	Single 53 (6A6)	3 ¹ / ₄ " x 2 ¹ / ₈ " x 2"	1 ¹ / ₄	2.35
467-428	7M	P.P. 76's (56's)	P.P. 53's (6A6's)	2 ⁷ / ₈ " x 2 ¹ / ₁₆ " x 2 ¹ / ₂ "	1 ¹ / ₂	2.35
467-271	7M	Single or P.P. 59 (46)	P.P. or P.P. Par. 59's (46's)	2 ³ / ₄ " x 3 ¹ / ₈ " x 3 ¹ / ₈ "	2 ¹ / ₂	3.00
467-462	7Z	P.P. 2A3's	Four 46's P.P. Par.	2 ¹ / ₁₆ " x 2 ¹ / ₂ " x 3 ⁵ / ₈ "	2 ¹ / ₂	3.00
467-441	7M	P.P. 2A3's (45's)	P.P. 210's	2 ³ / ₄ " x 2 ⁷ / ₈ " x 3 ⁵ / ₈ "	2	3.50
467-450	7M	P.P. 2A3's (45's)	P.P. 800's, RK 18's	2 ³ / ₄ " x 3 ⁵ / ₈ " x 3 ⁵ / ₈ "	3	5.00
467-451	7M	P.P. 2A3's (Fixed Bias)	P.P. 203A's, 203B's, 211's	2 ³ / ₄ " x 3 ³ / ₄ " x 3 ⁵ / ₈ "	3 ¹ / ₂	6.00
467-444	7M	P.P. 50	P.P. 203A's, 203B's, 211's	2 ³ / ₄ " x 3 ³ / ₄ " x 3 ⁵ / ₈ "	3 ³ / ₄	6.00
467-540	7Z	500 ohm. line	P.P. 203A's, or 203B's	2 ³ / ₄ " x 3 ³ / ₄ " x 3 ⁵ / ₈ "	3 ¹ / ₂	6.00
467-539	7H	500 ohm line	P.P. or P.P.P. Cl. AB ₂ 6L6's	2 ³ / ₄ " x 2 ¹ / ₂ " x 3 ¹ / ₈ "	2 ¹ / ₂	3.50

AUTOMATIC BIAS DRIVER TRANSFORMERS

The idea of Automatic Bias for Class "B" tubes was first conceived and developed in the Jefferson laboratories. These transformers are designed and properly tapped to efficiently drive both the Class "B" stage and the Bias attachment.

467-537	7Z	P.P. 2A3's (Fixed Bias)	P.P. 210's and Bias Tubes	2 ³ / ₄ " x 2 ¹ / ₂ " x 3 ⁵ / ₈ "	2 ¹ / ₂	\$4.50
467-529	7Z	P.P. 2A3's (Fixed Bias)	P.P. 800's and Bias Tubes	2 ³ / ₄ " x 3 ¹ / ₄ " x 3 ⁵ / ₈ "	3	5.00

Write for Bulletin PA-14 for complete discussion of Class "B" Automatic Bias.

OUTPUT TRANSFORMERS

Jefferson Output Transformers are supplied in a full range of sizes, in strap and universal mountings for coupling either single or push pull power tubes to the dynamic voice coil. Jefferson Universal Outputs are designed with a center tapped primary and multi-tapped secondary to match any combination of power tubes (except 2A3's and 250's), single or push pull, to the dynamic voice coil. They employ the principle of adjusting the ratio by the proper selection of taps.

UNIVERSAL OUTPUTS

Catalog No.	Style Mtg.	Watts	Impedance Ratio Pri.—Sec.	Tubes		Size	Wt. Lbs.	List Price
				S.—Single	P.P.—Push Pull			
467-177	7D		25,000 ohm pri. to 200/500 ohms. low level			2 7/8" x 2 13/16" x 2 1/2"	1 1/2	\$2.50
467-459	7A	2	7000 to 2, 3, 6, 9	S. or P.P.—42's to Voice Coil		2 9/16" x 1 5/8" x 1 5/16"	1/2	1.50
467-438	7A	12	250/500/1000 ohms to 3, 6, 9, 15 ohms			4" x 2 1/8" x 2 1/2"	2 1/4	3.00
467-170	7B	4	Primary	Single and P.P. 71A,		2 3/8" x 2 5/16" x 2"	1	2.00
467-425	7A	4	2000, to 20,000	45, 47, 89A, 42, 43, 46A, 12A		2 7/8" x 2 5/16" x 2 3/8"	1	1.75
467-176	7B	6	Ohms	S. and P.P.—71A, 45, 89, 42, 43, 46A, 12A,		2 3/8" x 2 1/2" x 2"	1 1/3	2.25
467-426	7A	6	Secondary	2A5, 6A4, 31, 33, 38, 47, 48, etc.		2 7/8" x 2 1/2" x 2 3/8"	1 1/3	2.00
467-171*	7J	6	3 to 15 ohms	S.&P.P.—71A, 45, 50, 47, 89A, 31, 33, 42, 43, etc.		2 3/4" x 2 7/8" x 3 1/8"	2 1/4	4.00

*Sec. also for 500 or 2000 ohms.

STANDARD OUTPUTS

Catalog No.	Style Mtg.	Watts	Primary Impedance	Sec. Imp.	Tubes		Size	Wt. Lbs.	List Price
					S.—Single	P.P.—Push Pull			
467-409	7A	2	7000	4-6	P.P.—71A, 45, etc. S-33, 42, 47, etc.		2 7/8" x 1 5/8" x 1 3/4"	1/2	\$1.15
467-410	7A	3 1/2	7000	6-8	P.P.—71A, 45, etc. S-33, 42, 47, etc.		3 1/4" x 1 7/8" x 2"	1	1.40
467-411	7A	6	14000	10-15	P.P. Pentodes, 41, 42, 47, etc.		3 1/4" x 2 1/8" x 2"	1 1/4	1.60
467-412	7A	10	6000	10-15	P.P.—45, 50, 2A3, S-50		4" x 2 1/8" x 2 1/2"	2 1/4	1.90

PLASTIC SEALED OUTPUTS

467-509	7L	2	7000	4-6	P.P.—71A, 45, etc. S-33, 42, 47, etc.		2 7/8" x 1 5/8" x 1 7/8"	3/4	1.35
467-510	7L	3 1/2	7000	6-8	P.P.—71A, 45, etc. S-33, 42, 47, etc.		3 1/4" x 1 7/8" x 2 1/8"	1 1/4	1.60

SPECIAL OUTPUTS FOR JEFFERSON AMPLIFIERS

Each unit is designed specifically for its application in order to give the finest results in frequency response and undistorted output. These units are incorporated in the Jefferson Amplifier Circuits which have proven to be very popular for both amateur and public address applications.

Catalog No.	Style Mtg.	Watts	Primary and Secondary Specifications			Size	Wt. Lbs.	List Price
467-416	7J	15	P.P. 2A3's Cl. "AB" (Fixed Bias) 3000 ohm Primary to 3, 6, 9, 15 ohms or 500 ohms			2 3/4" x 3 1/2" x 3 5/8"	3 1/4	\$4.00
467-456	7H	15	Same as 467-416 except type mounting			2 3/4" x 2 7/8" x 3 5/8"	3 1/4	4.00
467-417	7J	15	P.P. 2B6's Primary 10,000 ohms to Sec. 3, 6, 9, 15 ohms or 500 ohms			2 3/4" x 3 5/16" x 3 5/8"	2 3/4	3.50
467-423	7J	38	P.P.P. 45's Cl. "AB" (Fixed Bias) 1500 ohm Primary to 3, 6, 9, 15 ohms or 500 ohms			3 3/4" x 3 5/8" x 4"	5 1/4	6.00
467-491	7J	15-25	P.P. Cl. "B" 46's, 6A6's, 59's, 5000 ohms to 2 1/2, 5, 7 1/2, 12 1/2 ohms or 500 ohms			2 3/4" x 3 1/2" x 3 5/8"	3 1/4	4.00
467-460	7Z	20	P.P. 6F6's Cl. "AB" (Pent.) or 6B5's 10,000 ohms to 3, 6, 9, 15 ohms or 500 ohms			2 5/8" x 2 7/8" x 3 5/8"	3 1/4	4.00
467-525	7Z	60	P.P. 6L6's "AB ₂ " 3800 ohm Primary to 3, 6, 9, 15 ohms or 500 ohms			3 5/16" x 4 1/4" x 4 7/16"	7	7.50
467-535	7Z	120	P.P.P. 6L6's "AB ₂ " 1900 ohm Primary to 500/200/125/50 ohms			3 15/16" x 3 3/4" x 5 13/32"	10	9.50
467-538	7H	2	P.P. 6F6's Cl. "A" (Triode) to 500 ohm line (Pri. 8000 ohms)			2 3/4" x 2 1/2" x 3 5/8"	2 1/2	3.50



MODULATION TRANSFORMERS

Jefferson Modulation Transformers are liberally designed to withstand much hard usage and abuse. The secondaries are designed to carry the Class "C" Amplifier plate current as listed in the table, and will have a frequency response of minus 3 D.B. at 100 cycles with the D.C. saturation as stated.

Each transformer is adequately insulated to withstand the peak voltage surges developed at audio frequencies.

Catalog No.	Style Mtg.	Primary		Secondary		Size	Wt. Lbs.	List Price
		Impedance Ohms	Tubes	Impedance Ohms	D.C.-M.A. in Sec.			
467-445	7D	10,000	19	2,700	50	2 ⁷ / ₈ "x2 ¹ / ₁₆ "x2 ¹ / ₂ "	1 ¹ / ₂	\$4.00
467-446	7N	10,000	53, 6A6, 6N7, RK34	3,000	100	2 ³ / ₄ "x3"x3 ¹ / ₈ "	2 ¹ / ₂	5.00
467-457	7N	3,000	2A3's, 45's	10,000 Tap 8,300	60	2 ³ / ₄ "x3 ¹ / ₂ "x3 ⁵ / ₈ "	3 ³ / ₄	6.00
467-440	7N	6,000	46's, 59's, 250's	10,000 Tap 5,000	100	2 ³ / ₄ "x3 ¹ / ₂ "x3 ⁵ / ₈ "	3 ³ / ₄	6.50
467-442	7N	8,000	210's	5,000 Tap 3,000	120	3 ¹ / ₈ "x4 ¹ / ₈ "x4 ¹ / ₂ "	5 ¹ / ₂	9.00
467-453	7Q	1,500	4-45's, P.P.P. Class "AB"	14,000	80	3 ¹ / ₁₆ "x5 ³ / ₈ "x5 ³ / ₈ "	7 ¹ / ₂	12.00
467-526	7Z	3,800	6L6's AB ₂	7,200 Tap 3,000	200	4"x4"x5 ¹ / ₁₆ "	8 ¹ / ₂	9.00
467-536	7Z	1,900	4-6L6's AB ₂	11,000 Tap 7,500	175	3 ¹ / ₁₆ "x5 ² / ₃₂ "x5 ¹ / ₃₂ "	12	12.50
467-452	7Q	2,500	4-46's, 4-59's, 4-250's P.P.P.	7,200 Tap 2,900	140	3 ¹ / ₁₆ "x4 ¹ / ₄ "x5 ³ / ₈ "	9	15.00
467-447	7Q	12,000	800's, RK18's, RK30's, RK31's	10,000 Tap 7,000	140	3 ¹ / ₁₆ "x7 ¹ / ₂ "x5 ¹ / ₂ "	16	16.00
467-443	7EE	8,000	203A's, 203B's, 211's, T-55's, 830B's	6,600 Tap 3,300	300	6 ¹ / ₄ "x6 ¹ / ₂ "x8"	22	24.00
467-527	7EE	8,000	805's, 822's, HD 203A's	10,000 Tap 6,000 4000, 3000	500	7 ³ / ₄ "x6 ³ / ₄ "x10 ³ / ₄ "	46	40.00

PLATE SUPPLY TRANSFORMERS

Jefferson Plate Supply Transformers combine the finest of materials and workmanship together with conservative ratings and oversize construction to give the Amateur the heart of an ideal plate supply unit. All transformers are subjected to an insulation test as indicated in the table.

Catalog No.	Style Mtg.	Input Volt Amps.	Pri. Volts	SECONDARY (CHOKE INPUT)		Insulation Test	Size	Wt. Lbs.	List Price
				A.C. Voltage	D.C. Ratings*				
465-151	7M	80	115	425-0-425	350 V.-125 M.A.	1500 V.	3 ³ / ₈ "x4"x4 ¹ / ₄ "	6	\$5.00
465-261	7Z	210	120/110	498-0-498 380-0-380	410 V.-340 M.A. 305 V.-130 M.A.	1500 V. 1500 V.	3 ¹ / ₁₆ "x5 ⁵ / ₈ "x5 ¹ / ₃₂ "	17	12.50
465-161	7CC	145	115	750-0-750	650 V.-150 M.A.	2500 V.	3 ⁷ / ₈ "x4"x4 ⁵ / ₈ "	9	9.00
465-221 (d)	7Z	195	120/110	600-0-600	1000 V.-150 M.A. 500 V.-300 M.A.	3000 V. 3000 V.	4"x4 ¹ / ₂ "x5 ¹ / ₁₆ "	12 ¹ / ₂	11.00
465-171	7M	230	115	885-0-885	750 V.-200 M.A.	3000 V.	4"x5 ³ / ₄ "x5 ¹ / ₁₆ "	15	12.00
465-181	7EE	420 500	115	1265-0-1265 1520-0-1520	1000 V.-300 M.A. 1250 V.-300 M.A.	4000 V. 4000 V.	6 ¹ / ₄ "x6 ¹ / ₂ "x8 ¹ / ₈ "	30	23.00
465-291 (b)	7EE	650	115(b)	1770-0-1770 2050-0-2050	1500 V.-300 M.A. 1750 V.-300 M.A.	5000 V. 5000 V.	7 ³ / ₄ "x7"x10 ³ / ₈ "	45	30.00
465-211 (c)	7EE	500	115(c)	Two sections each 1150 V.	1000 V.-400 M.A. 2000 V.-200 M.A.	5000 V. 5000 V.	6 ¹ / ₄ "x6 ³ / ₄ "x7 ⁷ / ₈ "	28	25.00
465-191(a)	7EE	700 850	115(a)	1500-0-1500 3000-0-3000	1250 V.-500 M.A. 2500 V.-250 M.A.	7000 V. 7000 V.	8 ³ / ₄ "x8 ¹ / ₂ "x11 ³ / ₄ "	60	40.00
465-201(b)	7EE	1300	115(b)	2260-0-2260 2400-0-2400	1800 V.-500 M.A. 2000 V.-500 M.A.	7000 V. 7000 V.	8 ³ / ₄ "x7 ¹ / ₂ "x13 ¹ / ₂ "	85	56.00

(a) Sec. arranged for series or parallel operation. Has tap for reducing voltages 25%. (b) Sec. voltages obtained by Pri. Taps. (c) Sec. arranged for series or parallel connections and Bridge type rectification. (d) 1000 V. D.C. Bridge Rectifier. 500 V. D.C. Conventional Rectifier.

*D.C. rating at output of appropriate filter.



JEFFERSON ELECTRIC COMPANY

Bellwood ~ Illinois



CHOKES

Jefferson chokes are constructed of the finest materials and designed properly for their particular operation whether it be Filter Chokes, Swinging Chokes, or Plate Chokes. Jefferson chokes are supplied in a full range of inductance values in suitable mountings. Each item is conservatively rated as to inductance with a given D.C. flowing in the winding.

FILTER CHOKES

The day of the "30 Henry Choke Rating" regardless of operation is past, and in its place has come the actual inductance value at a specified D.C. saturation. Jefferson chokes are conservatively rated at their actual inductance with rated D.C. flowing in the winding.

Catalog No.	Style Mtg.	Rating		D.C. Resistance	Size	Wt. Lbs.	List Price
		Henries	M.A.-D.C.				
466-420	7A	15	30	515	2 ⁵ / ₈ " x 1 ³ / ₈ " x 1 ⁵ / ₈ "	1/2	\$ 0.90
466-390	7A	20	50	425	3 ¹ / ₄ " x 1 ⁷ / ₈ " x 2"	1	1.30
466-590	Same as 466-390 but PLASTIC-SEALED				3 ¹ / ₄ " x 1 ⁷ / ₈ " x 2 ¹ / ₈ "	1 ¹ / ₄	1.50
466-230	7A	50	60	1400	4" x 2 ¹ / ₈ " x 2 ¹ / ₂ "	2	1.50
466-290	7K	50	60	1400	2 ⁷ / ₈ " x 2 ⁵ / ₈ " x 3 ¹ / ₈ "	2 ¹ / ₂	1.75
466-400	7A	8	80	245	3 ¹ / ₄ " x 1 ⁷ / ₈ " x 2"	1	1.20
466-135	7B	8	80	245	2 ³ / ₈ " x 2" x 2"	1	1.25
466-410	7A	10	100	275	3 ¹ / ₄ " x 2 ¹ / ₈ " x 2"	1 ¹ / ₄	1.45
466-125	7B	10	100	275	2 ³ / ₈ " x 2 ¹ / ₄ " x 2"	1 ¹ / ₄	1.50
466-260	7A	5	120	150	2 ⁷ / ₈ " x 1 ⁵ / ₈ " x 2 ³ / ₈ "	1	1.00
466-430	7H	10	150	200	2 ³ / ₄ " x 2 ⁵ / ₈ " x 3 ¹ / ₈ "	2 ³ / ₄	2.25
466-220	7A	10	150	200	4" x 2 ¹ / ₈ " x 2 ¹ / ₂ "	2 ¹ / ₄	1.75
466-210	7W	15	150	425	3" x 2 ⁵ / ₁₆ " x 4 ¹ / ₄ "	3 ¹ / ₂	1.75
466-330	7P	12	200	150	3 ³ / ₈ " x 4 ¹ / ₂ " x 4 ¹ / ₂ "	6	5.00
466-350	7P	15	300	145	4" x 5 ¹ / ₈ " x 5 ³ / ₈ "	10	10.00
466-370	7DD	15	500	100	6 ¹ / ₄ " x 6 ¹ / ₄ " x 8 ¹ / ₄ "	26	17.00

SWINGING CHOKES

The Swinging Choke is used as an input filter in networks which supply a varying current to its load; namely Class "B" and "AB" audio circuits. Its purpose is to improve the voltage regulation of the complete power supply circuit. In the ratings shown below the inductance is given as a maximum at minimum D.C. saturation and as a minimum at maximum D.C. saturation. The inductance at any place between these two points is approximately proportional to the amount of D.C. saturation.

466-310	7K	20 to 7	20 to 70	250	2 ⁷ / ₈ " x 1 ⁷ / ₈ " x 2 ³ / ₈ "	1 ¹ / ₄	\$ 1.75
466-190	7K	8 to 2.7	50 to 150	80	2 ⁷ / ₈ " x 2 ⁵ / ₈ " x 3 ¹ / ₈ "	2 ¹ / ₂	2.25
466-300	7K	6 to 3	120 to 200	75	2 ³ / ₄ " x 2 ⁵ / ₈ " x 3 ¹ / ₈ "	2 ³ / ₄	2.50
466-470	7Z	6 to 3.5	200 to 350	40	3 ⁵ / ₁₆ " x 4 ³ / ₈ " x 4 ⁷ / ₁₆ "	7	6.50
466-320	7P	15 to 5	70 to 200	95	3 ³ / ₈ " x 4 ¹ / ₄ " x 4 ¹ / ₂ "	5 ¹ / ₂	5.00
466-340	7P	15 to 5	100 to 300	105	3 ³ / ₈ " x 4 ¹ / ₂ " x 4 ¹ / ₂ "	6 ¹ / ₂	8.50
466-360	7DD	15 to 5	170 to 500	60	6 ¹ / ₄ " x 5 ³ / ₄ " x 8 ¹ / ₄ "	21	15.00

PLATE CHOKES

Jefferson Plate Chokes serve in those applications of parallel feed where it is desired to isolate the D.C. tube current from the transformer primary. They can be used as the secondary or smoothing choke in filter circuits requiring a high value of inductance when the current drain is less than 15 M.A.

466-250	7A	150 H. CT.	15	10,000	2 ⁷ / ₈ " x 1 ⁷ / ₈ " x 2 ³ / ₈ "	1	\$ 1.40
466-240	7A	200 H.	18	5,000	2 ⁷ / ₈ " x 2" x 2 ³ / ₈ "	1 ¹ / ₄	1.10
466-540	Same as 466-240 but PLASTIC-SEALED				2 ⁷ / ₈ " x 2" x 2 ¹ / ₂ "	1 ¹ / ₃	1.30
466-280	7D*	250 H.	18	5,000	2 ⁷ / ₈ " x 2 ⁵ / ₈ " x 2 ¹ / ₂ "	1 ¹ / ₂	1.25
466-380	7C**	250 H.	18	5,000	2 ⁷ / ₈ " x 2 ⁵ / ₈ " x 2 ¹ / ₂ "	1 ¹ / ₂	1.25

*Lugs on shield. **Leads bottom.



VIBRATOR TRANSFORMERS

Sturdy, husky, Vibrator Transformers for replacement service in automobile receivers and for use in AMATEUR mobile transmitters and receivers.

Catalog No.	Style Mtg.	Voltage on 1/2 Pri. for operation With Vibrator Unit	D.C. Voltage With 8 MFD. Input Condenser	Size	Wt. Lbs.	List Price
465-271	7R	6 V. D.C.	245 @ 40 M.A.	2 1/2" x 2 1/8" x 3 1/8"	2	\$2.50
465-281	7R	6 V. D.C.	295 @ 45 M.A. or 270 @ 67 M.A.	2 1/2" x 2 5/8" x 3 1/8"	2 3/4	3.00

FILAMENT TRANSFORMERS

Jefferson filament supply transformers are designed for amateur radio receivers and transmitters. A high quality line with ample factor of safety for use at the high voltages encountered in this service.

Catalog No.	Style Mtg.	Pri. Volts 60 Cycles	V.A. Rating	SECONDARY			Size	Wt. Lbs.	List Price
				Volts	Amps.	Insulation Test			
464-211	7A	115	13	2.5 C.T.	5.25	1500	3 1/4" x 1 7/8" x 2"	1	\$1.60
464-221	7A	115	25	6.3 & 5 C.T.	4.0	1500	4" x 2 3/8" x 2 1/2"	2	2.25
464-201	7A	115	30	2.5 C.T.	12.0	7500	4" x 2 1/4" x 2 1/2"	2	2.50
464-281	7Q	115	30	2.5 C.T.	12.0	7500	3 1/4" x 5 3/8" x 4 1/2"	4	6.00
464-321	7A	115	49	7.5 C.T.	6.5	2000	3 1/4" x 2 1/2" x 4"	3 1/4	3.00
464-271	7Q	115	49	7.5 C.T.	6.5	2000	3 1/4" x 5 3/8" x 4 1/2"	4 1/4	6.00
464-461	7R	115	60	5.0 C.T.	12.0	3000	2 13/16" x 2 5/8" x 3 3/8"	3	3.50
464-441	7R	115	40	10.0 C.T.	4.0	2500	2 1/2" x 2 1/2" x 3 1/8"	2 1/2	3.00
464-241	7R	115	80	10.0 C.T.	8.0	5000	3 1/4" x 3 1/8" x 4"	4 1/2	4.00
464-291	7Q	115	80	10.0 C.T.	8.0	5000	3 3/8" x 5 3/4" x 4 1/2"	5 1/2	6.00
464-451	7R	120/110	100	5.0 C.T.	20.0	3000	3 1/4" x 3 1/2" x 4"	5	6.00
464-261	7BB	120/110	100	5.0 C.T.	20.0	8000	4 7/8" x 8 3/4" x 4 3/4"	13 1/2	16.00

COMBINATION TYPES

464-191	7M	120/110	64	2.5 C.T. 2.5 C.T. 5.0 C.T. 2.5 C.T.	14 1.75 3 3.5	1500	3 3/8" x 3 5/8" x 4 1/2"	4 1/2	\$4.00
464-231	7R	115	38	7.5 C.T. 7.5 C.T.	2.5 2.5				
464-311	7R	115	60	5.0 C.T. 5.0 C.T. 5.0 C.T.	3.0 3.0 6.0	3000	3 1/4" x 2 1/2" x 4"	3 1/2	5.00
464-301	7M	115	50	2.5 C.T. 2.5 C.T. 2.5 C.T.	5.0 5.0 10.0				
464-251	7M	120/110	74	7.5 C.T. 2.5 C.T.	6.5 10.0	3000 6000	2 3/8" x 3 3/4" x 4 1/2"	5	8.00
464-431	7Z	120/110	91	6.3 C.T. 5.0 C.T. 5.0 5.0	6.1 2.0 6.0 3.0				

POWER TRANSFORMERS FOR JEFFERSON AMPLIFIERS

Power Transformers designed specifically for use in the Jefferson Amplifiers can be relied upon to deliver rated current and voltages with a temperature rise low enough to insure long life and trouble-free service.

Catalog No.	Style Mtg.	Pri. Volts 60 Cycles	Input Volt Amps.	Rect. Fil No. 1	Secondary Ratings *High Voltage Tapped for Bias Voltage	Filament No. 2	Filament No. 3	List Price
463-391	7Z	120/110	98	5 V.-3 A.	*320 V. D.C.—100 M.A.	2.5 V.- 9 A. C.T.	1.5 V.-1 A.	\$5.00
463-401	7Z	120/110	150	5 V.-3 A.	*300 V. D.C.—160 M.A.	2.5 V.-10 A. C.T.	2.5 V.-1.5 A.	7.50
463-481	7Z	120/110	98	5 V.-3 A.	*320 V. D.C.—100 M.A.	2.5 V.-9 A. C.T.	1.5 V.-1 A.	5.00
463-491	7Z	120/110	91	5 V.-3 A.	330 V. D.C.—100 M.A.	6.3 V.-4 A. C.T.		5.00
463-501	7Z	120/110	98	5 V.-3 A.	400 V. D.C.—100 M.A.	6.3 V.-3 A. C.T.		5.00
463-541	7Z	120/110	210	5 V.-3 A.	410 V. D.C.—175 M.A. 325 V. D.C.—115 M.A.	5 V.-3 A.	6.3 V.-3 A.C.T.	9.00

Radio Replacement Power Transformers

JEFFERSON power transformers are built to meet every need for the servicing of radio receiving sets and for the construction of high grade amplifier equipment. The liberal use of materials and the conservative ratings are positive assurance of satisfactory performance. Every transformer combines all the skill and knowledge that JEFFERSON experience can provide.

REPLACEMENT TRANSFORMERS DIMENSIONS AND WEIGHTS

Catalog No.	Style Mtg.	"A"	"B"	"C"	Mtg. Screw Centers	Opening Required	Weight, Lbs.
463-561	7X	2 ⁹ / ₁₆	3	1 ³ / ₄	2 ¹ / ₄	2 x 2 ¹ / ₄	2
463-451	7X	2 ⁹ / ₁₆	3	1 ³ / ₄	2 ¹ / ₄	2 x 2 ¹ / ₄	2 ¹ / ₂
463-281	7X	2 ⁹ / ₁₆	3	2 ¹ / ₄	2 ¹ / ₄	2 x 2 ¹ / ₄	3 ¹ / ₂
463-421	7X	3 ¹ / ₄	3 ⁷ / ₈	2 ¹ / ₈	2 ²⁷ / ₃₂	2 ¹ / ₂ x3	4
463-271	7X	3 ¹ / ₄	3 ⁷ / ₈	2 ⁹ / ₁₆	2 ²⁷ / ₃₂	2 ¹ / ₂ x3	5 ¹ / ₄
463-411	7Y	3 ¹ / ₄	3 ⁷ / ₈	2	2 ²⁷ / ₃₂	2 ¹ / ₂ x3	4
463-441	7Y	3 ¹ / ₄	3 ⁷ / ₈	2 ⁵ / ₈	2 ²⁷ / ₃₂	2 ¹ / ₂ x3	5 ¹ / ₂
463-371	7Y	3 ¹ / ₄	3 ⁷ / ₈	2 ⁵ / ₈	2 ²⁷ / ₃₂	2 ¹ / ₂ x3	5 ¹ / ₂
463-461	7Y	3 ¹⁵ / ₁₆	4 ¹¹ / ₁₆	2 ⁵ / ₈	3 ¹ / ₂	2 ⁷ / ₈ x3 ¹ / ₂	7 ³ / ₄
463-341	7Z	3 ⁹ / ₃₂	3 ¹ / ₂	4 ¹⁵ / ₃₂	2 ¹¹ / ₁₆ x2 ³ / ₄		5 ¹ / ₂
463-381	7Z	2 ¹⁹ / ₃₂	3 ¹ / ₁₆	3 ⁹ / ₁₆	2 ³ / ₁₆ x2 ¹ / ₂		3 ¹ / ₂
463-431	7Z	3 ³ / ₈	3 ³ / ₄	4 ¹ / ₂	3x2 ¹¹ / ₁₆		6
463-351	7Z	3 ⁹ / ₃₂	3 ³ / ₄	4 ¹⁵ / ₃₂	2 ¹¹ / ₁₆ x3		5 ¹ / ₂
463-361	7Z	3 ¹⁵ / ₁₆	3 ²⁷ / ₃₂	5 ¹³ / ₃₂	3 ¹ / ₈ x3 ¹ / ₈		8
463-241	7AA	3 ⁵ / ₈	4	3 ¹⁵ / ₆₄	2 ¹ / ₁₆ x3 ¹ / ₈ x2 ¹ / ₂		4 ¹ / ₂
463-251	7AA	3 ⁷ / ₈	4	3 ¹⁵ / ₆₄	2 ⁵ / ₁₆ x3 ¹ / ₈ x2 ¹ / ₂		5 ¹ / ₄
463-261	7AA	3 ⁷ / ₈	4 ²¹ / ₃₂	3 ⁷ / ₈	2 ¹ / ₈ x3 ³ / ₄ x3		7 ³ / ₄
463-471	7AA	3 ¹ / ₂	4	3 ¹⁵ / ₆₄	2x3 ¹ / ₈ x2 ¹ / ₂		4 ¹ / ₂

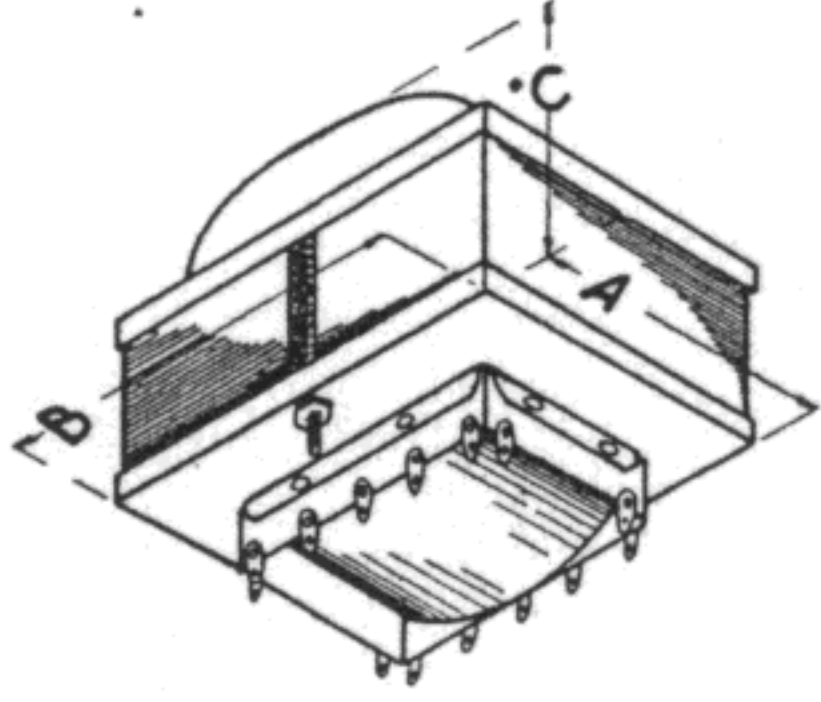


Fig. 7X

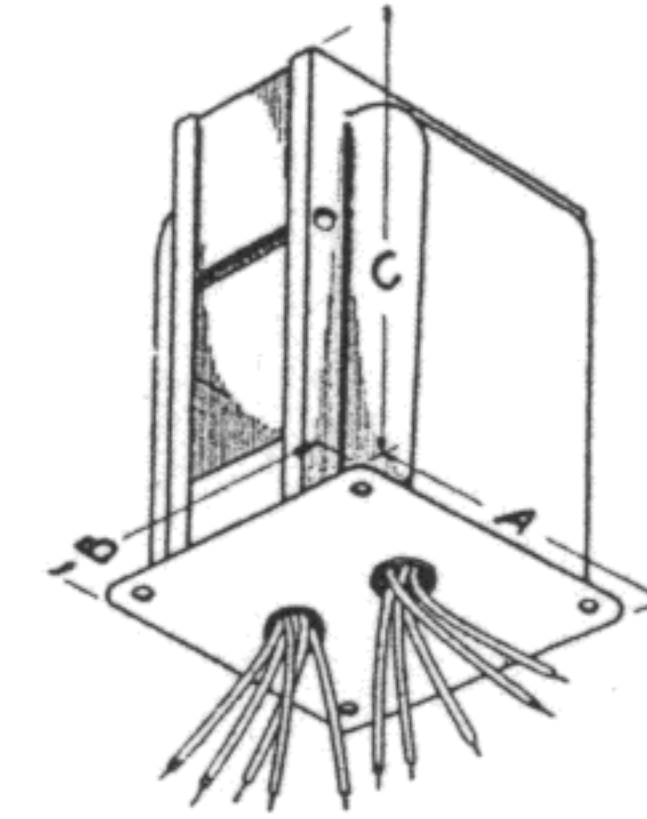


Fig. 7Z

POWER TRANSFORMERS FOR JEFFERSON AMPLIFIERS

463-391	7Z*	3 ¹⁵ / ₁₆	3 ¹³ / ₃₂	5 ¹³ / ₃₂	2 ¹¹ / ₁₆ x3 ¹ / ₈		6
463-401	7Z	3 ¹⁵ / ₁₆	3 ²⁷ / ₃₂	5 ¹³ / ₃₂	3 ¹ / ₈ x3 ¹ / ₈		8 ¹ / ₄
463-481	7Z	3 ¹⁵ / ₁₆	3 ¹³ / ₃₂	5 ¹³ / ₃₂	2 ¹¹ / ₁₆ x3 ¹ / ₈		6 ¹ / ₄
463-491	7Z	3 ⁹ / ₃₂	3 ³ / ₄	4 ¹⁵ / ₃₂	2 ¹¹ / ₁₆ x3		5 ³ / ₄
463-501	7Z	3 ¹⁵ / ₁₆	3 ¹³ / ₃₂	5 ¹³ / ₃₂	3 ¹ / ₈ x2 ³ / ₄		6
463-541	7Z	3 ¹⁵ / ₁₆	4 ⁵ / ₈	5 ¹³ / ₃₂	3 ¹ / ₈ x4 ¹ / ₈	*	12

*Has Lug Terminals on shields.

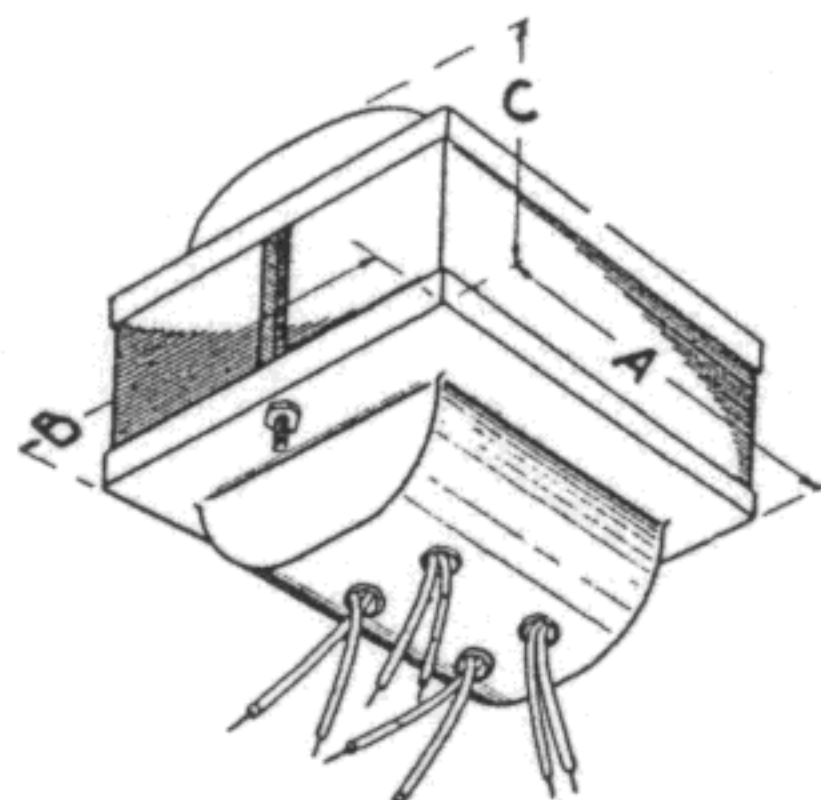


Fig. 7Y

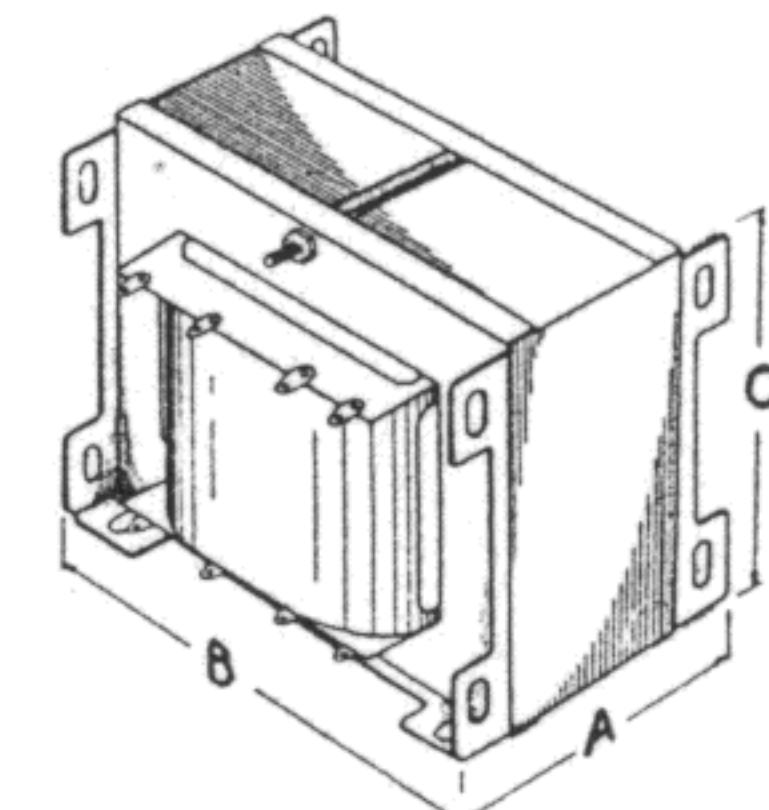


Fig. 7AA

COMPLETE TABLE OF RATINGS GIVEN ON NEXT PAGE.

The characteristics of the individual units can be determined from the chart on the next page. This clearly shows the number of windings and the rating of each. In order to assist in the application of these transformers the rating of each filament is given in terms of tubes. Listed with the rating of each filament winding is a symbol to denote the maximum number and type tube filament which may be applied to that winding. THE UNIVERSAL FILAMENT winding is an important EXCLUSIVE JEFFERSON FEATURE. Taps provide 6.3, 5 or 2.5 volts on the one winding making the transformer equally adaptable to the use of 6.3, 5 or 2.5 volt tubes.

AUTO TRANSFORMERS

Jefferson Auto Transformers reduce 220 volts A.C. to 110 volts A.C. to permit operations of 110 volt devices in communities served with 220 volts A.C.

These models are designed especially for radio use, they are small and compact, and are equipped with receptacle on the secondary and 9 feet of cord with plug on primary.

Catalog No.	Style Mtg.	Capacity Watts	Voltage	Cycles	DIMENSIONS			Weight, Lbs.	List Price
					Length	Width	Height		
233-213	7S	125	220 to 110	50 to 133	3 ³ / ₄ "	3 ⁵ / ₈ "	3 ¹ / ₈ "	4	\$5.60
233-323	7S	250	220 to 110	50 to 133	4"	4"	5 ³ / ₈ "	6 ¹ / ₂	9.40



JEFFERSON ELECTRIC COMPANY

Bellwood ~ Illinois



Radio Replacement Power Transformers

A SIZE AND MOUNTING FOR EVERY REQUIREMENT
A COMPLETE TABLE OF RATINGS

Primary 50-60 Cycles			TAP PRIMARY						Price
Catalog Number	Style Mtg.	Input Volt Amps.	Primary Volts	Rectifier Fil No. 1	High Voltage Plate	File No. 2	File No. 3	File No. 4	
463-561	7X	40	115	5V-2A	300V DC- 35 MA	6.3V-1.6 A.	—	—	\$2.25
463-451	7X	40	115	5V-2A	360V DC- 40 MA	① or ② + ① 2.5V-4 A. Ct.	—	—	2.50
463-281	7X	57	115	5V-2A	340V DC- 60 MA	—	—	③ or ⑤ or ④ + ① 6.3V-2A or 2.5V-7A	3.00
463-421	7X	65	115	5V-2A	350V DC- 70 MA	③ or ⑤ + ② 2.5V-8.5 A. Ct.	—	—	3.50
463-271	7X	85	120/110	5V-2A	350V DC 85 MA	⑤ or ⑧ 2.5V-8.75 A. Ct.	② 2.5V-3.5 A. Ct.	—	4.50
463-411	7Y	60	115	5V-2A	320V DC- 65 MA	⑥ + ① 6.3V-2.5 A. Ct.	—	—	3.00
463-441	7Y	100	115	5V-2A	350V DC-100 MA	⑩ + ② 6.3V-4 A. Ct.	—	—	4.00
463-371	7Y	90	120/110	5V-3A	350V DC- 85 MA	—	⑤ or ⑨ 2.5V-9 A. Ct.	② or ⑨ + ② 6.3V Tap @ 5V Tap @ 2.5V-3.5 A. Ct.	4.50
463-461	7Y	140	120/110	5V-3A	360V DC-125 MA	① or ① or ① 2.5V-1.75 A. Ct.	⑦ or ⑩ 2.5V-12.2 A. Ct.	② or ⑨ + ② 6.3V Tap @ 5V Tap @ 2.5V-4 A. Ct.	5.00
463-341	7Z	66	120/110	5V-2A	320V DC- 75 MA	② or ③ or ② 2.5V-3.5 A. Ct.	(2-71 A's) 5V-0.6 A. Ct.	No. 4-1.5V-4.3A (4'26) No. 5-1.5V-1.2A Ct.(26)	4.50
463-381	7Z	57	115	5V-2A	340V DC- 60 MA	—	—	③ or ⑤ or ④ + ② 6.3V-2A or 2.5V-7 A. Ct.	3.00
463-431	7Z	100	115	5V-2A	350V DC-100 MA	⑩ + ② 6.3V-4 A. Ct.	—	—	4.00
463-351	7Z	90	120/110	5V-3A	350V DC- 85 MA	—	⑤ or ⑨ 2.5V-9 A. Ct.	② or ⑨ + ② 6.3V Tap @ 5V Tap @ 2.5V-3.5 A. Ct.	4.50
463-361	7Z	140	120/110	5V-3A	360V DC-125 MA	① or ① or ① 2.5V-1.75 A. Ct.	⑦ or ⑩ 2.5V-12.2 A. Ct.	② or ⑨ + ② 6.3V Tap @ 5V Tap @ 2.5V-4A. Ct.	5.00
463-241	7AA	66	120/110	5V-2A	320V DC- 75 MA	② or ③ or ② 2.5V-3.5 A. Ct.	(2-71 A) 5V-0.6 A. Ct.	No. 4-1.5V-4.3 A (4-26) No. 5-1.5V-1.2A.Ct.(26)	4.50
463-251	7AA	86	120/110	5V-2A	350V DC- 85 MA	—	⑤ or ⑨ 2.5V-8.75 A. Ct.	② or ⑨ + ② 6.3V Tap @ 5V Tap @ 2.5V-3.5 A. Ct.	4.50
463-261	7AA	140	120/110	5V-3A	360V DC-125 MA	① or ① or ① 2.5V-1.75 A. Ct.	⑦ or ⑩ 2.5V-12.2 A. Ct.	② or ⑨ + ② 6.3V Tap @ 5V Tap @ 2.5V-4 A. Ct.	5.00
463-471	7AA	75	115	5V-3A	240V DC-150 MA	SPEAKER FIELD SUPPLY DELIVERING 36 WATTS OF DC USING 80, 523, or 83 RECTIFIER			3.50

D.C. Ratings measured with 8 MFD input condenser to filter and an 80 Rectifier Tube.

POWER TRANSFORMER WINDING CAPACITIES:
 ◊ = 1.75 ampere (or less) power tubes (45, 47, etc.) at 2½ volts
 ○ = 1.75 ampere heaters (24, 27, etc.) at 2½ volts
 □ = 1.0 ampere heaters (56, 57, etc.) at 2½ volts
 ◊ = 0.3 ampere heaters (75, 77, etc.) at 6.3 volts
 △ = 0.7 ampere heaters (42, 79, etc.) at 6.3 volts



JEFFERSON ELECTRIC COMPANY

Bellwood ~ Illinois



JEFFERSON POWER TRANSFORMER REPLACEMENT GUIDE

Universally Constructed Units—Adapted to all Service Requirements
Refer to Radio Catalog Pages 1 and 2 for Transformer Specifications

Power Transformers for over 1900 Sets

Cat. No.	Set Model	Cat. No.	Set Model	Cat. No.	Set Model	Cat. No.	Set Model
A. C. Dayton		Belmont Radio Corp.		DeWald Radio		Frost Minton	
463-241	AC-63	463-271	70, 1050	463-241	AC-171-2	463-281	4PW, FM-4, FM-5
463-361	AC-Navigator	463-281	40AC, 50, 50A, 50B, 50C, 60, 550	463-271	724-1, 746-7M	General Electric Co.	
Acme Electric & Mfg. Co.		463-361	100, 110	463-351	24-45, 811-A, AC14-45, AC-724	463-361	H-31, H-51, H-71, H-91, H-91-R
463-241	AC-7	463-371	71C	463-361	802, B-A-M	General Household Utilities	
463-261	SG-88	463-421	70A, 575, 675, 750, 775	463-381	503-4, 535-6, 547, 547A, 570, AC-447-M, AC-524	463-281	460 (4B)
463-351	AC-98	463-451	40A	463-421	BAG	463-341	750, 751, 752, 753 (7B)
Advance Electric Company		Brandes Products (Also see Kolster)		463-431	81, 81R	463-351	801,
463-351	77, 88, 89, Falck Ser. B	463-351	A-1, B-11, B-12	463-441	80, 100	463-361	901, 902 (9A), 1101, 1151, 1152 (11A)
463-381	Falck Mod. E	Bremer-Tully Mfg. Co.		Echophone Radio Mfg. Co.		463-381	650, 651 (6A), 660, 661, 662 (6C), 670, 671 (6D), 700, 701
Air King Products Corp.		463-241	6-40, 6-41, 7-70, 7-71	463-271	60, 80, 81, 90	General Motors Radio Corp. (Dayfan)	
463-281	52, 54	463-261	81, 82, S-81, S-82	463-281	12, 38, 40 Echoette, 119, 126, 143	463-241	25, 26, 27, 28, 43, 48, 5069, 5080, 5091, A-5003, Dayfan 8-AC
463-351	7, 6LW, 7LW	Browning Drake		463-421	5, 10, 14, 15, 16, 17, 18, 20, 50, 124, F	463-351	120, 130, 140, 216, 217, 219, 220, 250, A-5005, S-1-A, S-10-A
All American Mohawk		463-241	34, 36, 38	463-451	4, 44	463-361	251 (S2A), 252, 253, 254, 255, 256, 257, 258 (S3A), 292, 293, A, S4-A, S4-B
463-241	60, 61, 62, 65, 80, 83, 84, 85, 86, 88, AC226, 227, Mohawk	463-261	69, 70, 71	Edison (Splitdorf)		463-421	110, 180, 190, 211, Little General
463-251	96, C-6, K, Lyric D	463-281	Junior	463-241	E175, Splitdorf Abbey Jr.	Gilfillan Brothers	
463-261	90, 94SG, 95SG, 96SG, HJ	463-351	20, 40, 54, 80	463-361	C4, R4, R5, R6, R7	463-281	5C, 5T, 32, 35, 41
463-271	S-80, SA-90, SA-91	Brunswick Radio Corp.		463-381	Edison Bell Company, Inc.	463-351	100
463-281	S-50, S-63	463-241	2KRO, 3KR6, 3KRO, 5KR, 5KR6, 5KRO, PR-17-8, R-1	463-251	36	463-361	8C, 8T, 47, 50
463-361	S-10, SA-130	463-261	5NO	463-271	Electrical Research Labs. (Erla)	463-381	6C, 6T
463-381	SA-65, SW-8	463-271	D	463-271	30, 81-P, 82-P	463-451	4T, 30
463-421	SW-80	463-281	10	463-351	71, 72, 73, 224-B, 225, 271, 271A	Graybar Electric Company, Inc.	
463-451	S-40	463-351	14, 15, 17, 21, 22, 24, 25, 31, 32, 42, 81, 82, S14, S21, S31, S81, S82	463-361	35, 37, 38, 39, 224AC, 230	463-241	311
Allied Radio Corp. (Knight)		463-361	3NC8, 5NC8, 14, 21	463-381	5700, 5721, 6300, 6315, 6317, 6323	463-351	600
463-271	K-10T, K-118	Buckingham Radio Corp.		463-421	61, 62, 63	463-361	8, 9, 100, 700, 770, 900
463-281	AC-5, F-9555, K-6TDW, P	463-241	80	Emerson Radio		Grebe, A. H. & Company	
463-341	K-8-9AC	Bulova Watch Company		463-271	AW-55	463-241	428 Set only, AC-6, AC-7
463-351	K-SG-8, SG-9, SG-10	463-281	M-501	463-281	23 (4-B) 26, 28 (5-J), 39, 59 (D-S5), CS, JS, L-AC-5	463-271	HS-8
463-381	K-E9830	463-421	600, 601, 605, 610, C-751, M-701	463-361	65, F	463-281	HS-3
463-411	F-9505, F-9521	Bush & Lane Piano Company		463-411	45 (6-BD)	463-351	AH-1, SK-4
463-421	K-7T	463-351	10, 12, 12SG	463-421	50L, 50M, 77, KS, L-755, M-AC-7, M755, S50	463-361	111-B
463-441	F-9531, F-9591	Capehart Corporation		463-441	71, 770 (AW-7)	463-421	HS-7
Amrad Corporation		463-361	103, 104	463-451	L-AC-4, T, TS	Grigsby-Grunow (Majestic)	
463-241	AC6, AC7	Century Radio Products Co.		463-271	600AC	463-241	70, 70B
463-261	81, Bel-Canto Ser.	463-281	4-47, 4-78, 5-38, 5-47	463-281	51, 500AC, 550AC, 575	463-281	15, 15B, 55, 59, 75, 150, 195, 310A, 310B, 380, 560, 566
463-351	Bel-Canto 81	463-361	Century Ace, Queen	463-381	74	463-351	200, 290, 330
F. A. D. Andrea, Inc. (See also Fada Radio)		Coast to Coast Radio Corp.		463-421	71, 470C	463-361	21, 22, 23, 25, 25B, 35, 52, 90, 90B, 100, 130, 130A, 131, 132, 210, 220, 230A, 233, 300, 320, F-50
463-251	25, 40AC, 43	463-431	525	463-451	400AC	463-381	460, 461, 463, 570
463-261	10, 11, 16, 17, 20, 30, 31, 32, 41, 42, 44, 46, 47, 265CA, 265UA, 475CA, 475UA	Colonial Radio		463-281	55	463-421	55, 85, 86, 390, 998
463-351	61, 66 (KX)	463-241	31AC	463-351	73, 85	463-451	10
Atchison Radio Mfg. Co.		463-251	36, 36P, 37, 37P, 39, 41, 42, 44, 47, 48, 49, 114, 117, 125	463-361	66, 74, 76, 78, 79, 83, 88, 89, 133, 134, 135	Gulbranson	
463-251	5	463-261	32AC, 33AC, 34AC, 50	463-381	141, 141-Z-NA, NA-141, NE-151, NE-152, NF, RX	463-271	10, 13 Ser.
463-261	6	463-271	38, C-399, T-345	463-431	RW (78-10, 79-10, 97-10)	463-281	352
Atwater-Kent Mfg. Co.		463-281	46, 73, C-495, T-397	Fairbanks-Morse Home Appliance (See also Audiola)		463-361	23 Ser.
463-241	36, 37, 40, 42, 43, 44, 52	463-351	51, 52, 62, C-595	463-281	51 Ser., 52, 53	Halsen Radio Corp.	
463-251	55, 60, F, P, L-1, L-2	463-361	33, 34, 35, C-695	463-351	70 Ser.	463-271	Long Brdcast.
463-351	80, 82, 83, 84, 85, 86, 90, 92, 94, 96, 188, 228, 567, 788, 808A	463-371	603, 604	463-361	38A	463-281	515, 515SW
463-361	86, 87, 89, 89P, 99, 99P, 260, 310, 448, 469, 480, 510, 559	463-411	600, 600A, 650, 652, 653, 658	463-421	2, 5, 14-A, 31-40	463-411	410, 520
463-381	145, 165, 185, 185-A, 206, 217, 246, 266, 325, 376, 425, 427, 525, 555, 588, 627, 665, 667, 708, 808, 808-A, 944	Columbia Phonograph Company		463-451	39A, 43A, 44A, 86, 87	463-421	610
463-401	711	463-261	8	463-451	Cathedral Tone	Hammarlund Mfg. Company	
463-451	93SW Con.	463-281	31, 33	Federal Radio Corp.		463-271	Comet Pro., Comet Pro. AVC
Audiola Radio Company		463-351	SG-5	463-241	G-10-60, G-40-60, G-41-60, H-10-60, H-40-60, H-41-60	Hammarlund Roberts	
463-241	889	463-361	C-80-A, C-80-B, C-90, C-100, C-800, SG-9, SG-10	463-351	K, M	463-351	H1-Q-30, H1-Q-31
463-251	30B, 31, 7330, 8430	463-421	32, 34	Fordson Radio, Inc.		High Frequency Labs.	
463-261	31 Super	Continental Radio		463-281	FP	463-281	160-6
463-271	13S9, 23-S-8Q, 6T Jr. #1, 6T Jr. #2, 6T31 Pen., 7T31 Super Pen., Junior	463-261	Slagle Nine	463-441	FW	463-351	117-4, 200, 222
463-281	13T5, 23-S-8, 23-T-5, 23-T-5-SW	CRC		Franklin Radio Corp.		463-361	HFL Master Tone
463-361	9T Super 31, 10T Super 31, 23-S-10, 23-S-12, 33-S-10	463-451	24-45, 24-47, 58-47	463-281	6T Super, 102, 104	Charles Hoodwin Company	
463-381	33-S-5, 33-S-7, 34-S-5, 34-S-5-LW	Crosley Radio		463-361	94	463-281	5T-AC, 5T-TRF
463-451	4T-31, 4T-32	463-241	32, 40, 41, 41A, 42, 3and Box 602, Gem Chest 609, Gem Box 610, 704, 704A, 706 Show Boat	463-381	63L, 64, 106	463-361	International 11T
Autocrat Radio Corp.		463-251	30S, 31S, 33S, 34S, 53, 54, 57, 77, 84, 120, 179, 184	463-451	105	463-381	6TAC Super
463-361	90SL	463-261	40S, 41S, 42S, 45S, 180, 804	Freed-Eisemann Radio Corp.		463-451	4T-TRF
463-381	6, Autocrat 6, 80	463-351	72, 72LB, 122, 123, 124, 129-1, 134, 134-1, 150, 154, 158	463-241	NR-55, NR-57, NR-60, NR-80	Herbert H. Horn	
463-451	57C, Autocrat Jr. 4	463-361	80AW, 80AWLV, 121A, 121B, 124-1, 127, 127-1, 130, 130-1, 132-1, 136-1, 157, 160, 164, 170, 171	463-361	NR-78, NR-79, NR-90S, NR-95	463-361	101B, 102
Automatic Radio Mfg. Co.		463-381	48, 50, 50LB, 59AC, 125, 131, 133, 135, 137, 141, 148, 168, 181, De Luxe Fiver LB, Dual Sixty, Fiver Jr., Sixty-one	Freed Radio & Television		463-381	58, 158
463-281	P-25, Tom Thumb	Detrola Radio Corp.		463-271	FE98	463-411	36, 156
Nathaniel Baldwin Company		463-281	4D, 4TRF32, 503	463-281	56, 58AC, 92AC, MB-5	463-451	24
463-261	80	Balkeit Radio		463-381	354, 360	Howard Radio Company	
463-451	45, 47	463-251	E, F, L-7	463-421	72, 74, MB-7	463-241	8 Green Diamond, H, X, O
463-261	A3, A5, A7, C	463-261	100, L-8, SG-6	Freshman (Earl)		463-271	SG-B, SG-T
463-271	52-1, 55, D-5, KP	463-281	60, 70	463-241	21AC, 22AC, G, G-60S, Equaphase, Freshman M	463-351	35, 40, Q, SG-A, SG-C, Z-4
463-381	42E, 42G, M	463-381	60, 70	463-361	Earl 31, 31S, 32, 32S, 33S, 41AC	463-361	35-A, 400, 420, EX, R-9
463-451		463-451		463-381		463-381	X-2, X-3, X-8
				463-461		463-461	AVH


JEFFERSON ELECTRIC COMPANY

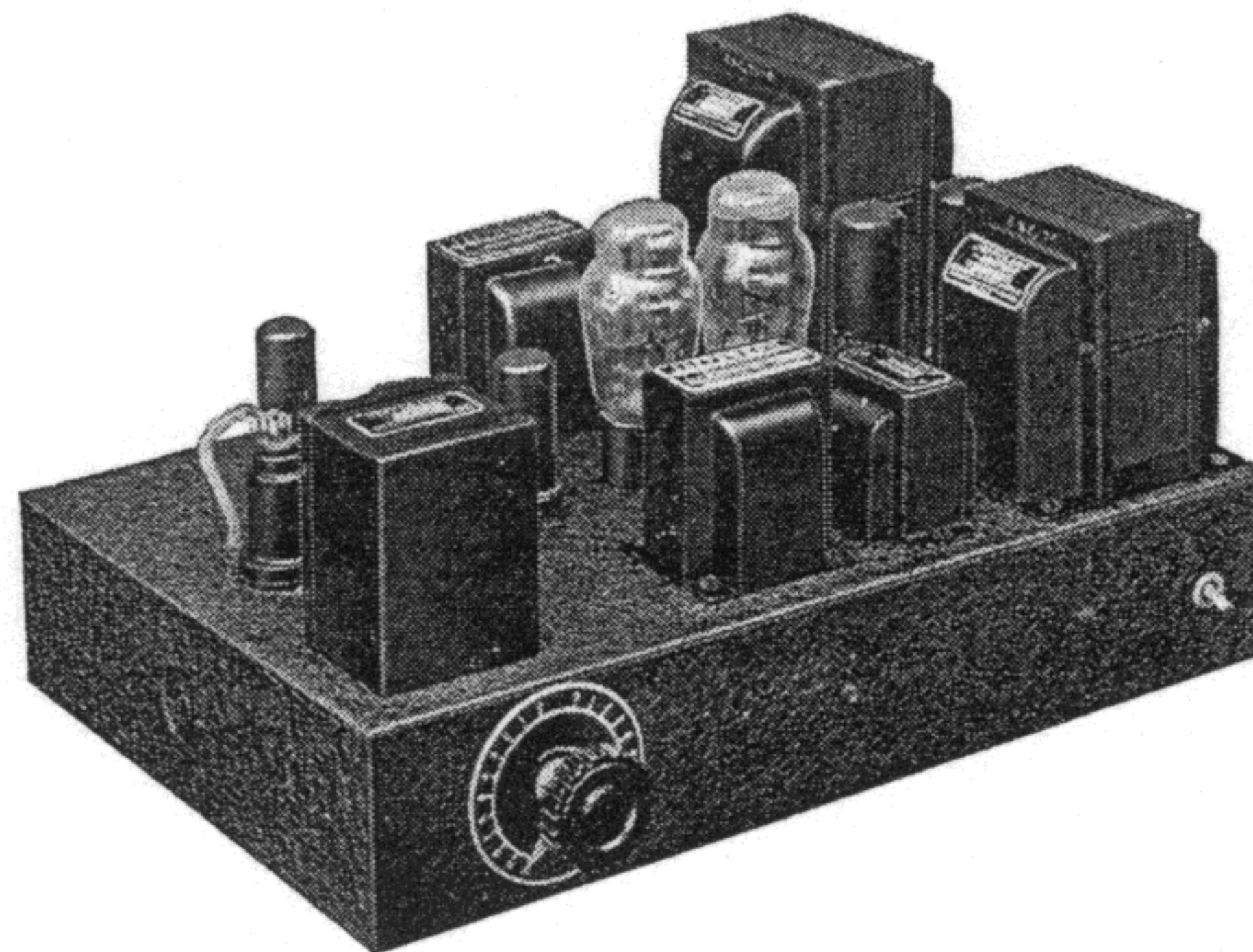
Bellwood ~ Illinois

Power Transformers for over 1900 Sets—Continued

Cat. No.	Set Model	Cat. No.	Set Model	Cat. No.	Set Model	Cat. No.	Set Model
Insuline Corp. of America		Montgomery Ward & Company		Republic Industries		Traveler Radio & Television	
463-281	5T-AC	463-361	7T Super, 8TSG, 17, 62-20, 62-38, 62-40, 62-50, Ch. 1238, Ch. 1355, Ch. 1838, Ch. 1955, Ch. 62-11, Ch. 62-14, Cavalier, Commander, Commodore, Grenadier, Minstrel, Recital, Sovereign	463-381	CS-6, TL-6C, TR-5B, Skyhawk SL-5-D	463-241	6T-TRF
463-381	Combination BC & LW, Conqueror SW, Envoy AC6T, Super Six AVC, Super Seven	463-411	93A, 93B	463-281	60G, 60L	463-351	S-8, S-9
463-451	Insulette, Mascot	463-461	62-103, 62-105	R. K. Radio Labs., Inc.		United Air Cleaner	
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463-281	563A	463-281	7, 81, 84, C-157 AB & F, C-162, C-165, K-106, K-108, K-117, K-121, K-121X, K-126, K-128, L-8, S-148, S-155 AB & F, S-164, SG-105, Midget	463-281	55, 81, 1010	463-251	SB-45 Super, SBA Super, SBF Super
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JEFFERSON AMPLIFIER CIRCUITS

Periodically complete circuit diagrams are published on powerful public address amplifiers which have been developed in the JEFFERSON laboratory using various combinations of popular tubes. JEFFERSON engineers are well qualified through years of specialization in the radio transformer field to assume leadership in the promotion of custom built amplifiers among radio service men and experimenters. Careful study is given to the development of these special circuits—each is of proven performance—exclusive features abound and they are presented in simple and complete form. A wealth of testimonials declare to their popular acceptance.



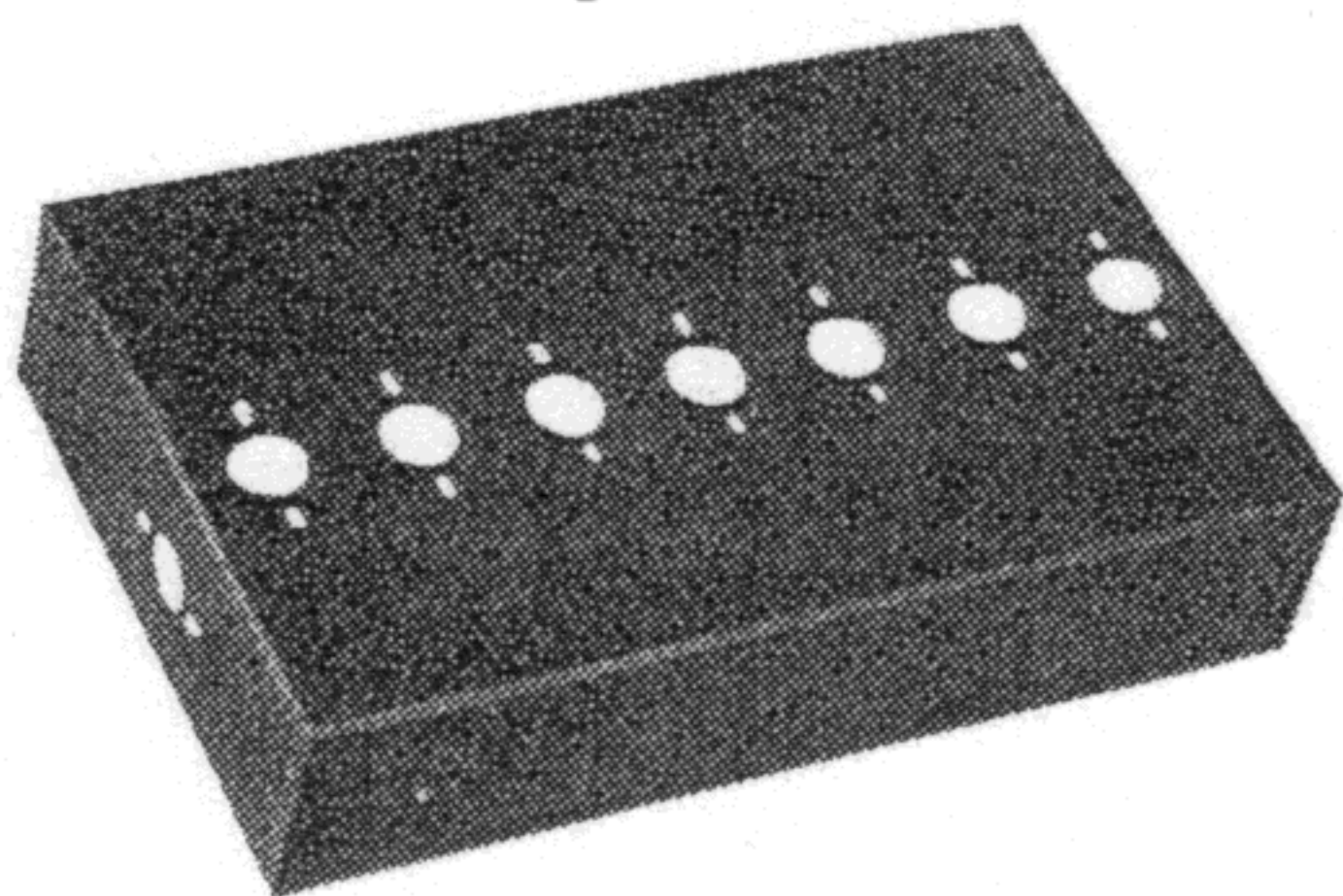
When newly developed amplifier tubes are presented to the market their characteristics are carefully studied by Jefferson engineers and if found suitable a circuit is developed using them which is then published in bulletin form and distributed to the trade. In this way latest combinations are immediately made available.

It is customary to apply listed stock transformers and chokes to all new circuits wherever possible. A transformer or choke may have application to several circuits.

The components manufactured by JEFFERSON are listed at moderate prices in spite of their superior quality. Quantity production under careful control and rigid inspection makes this possible.

Copies of all amplifier circuits are available upon request.

JEFFERSON AMPLIFIER FOUNDATION UNIT



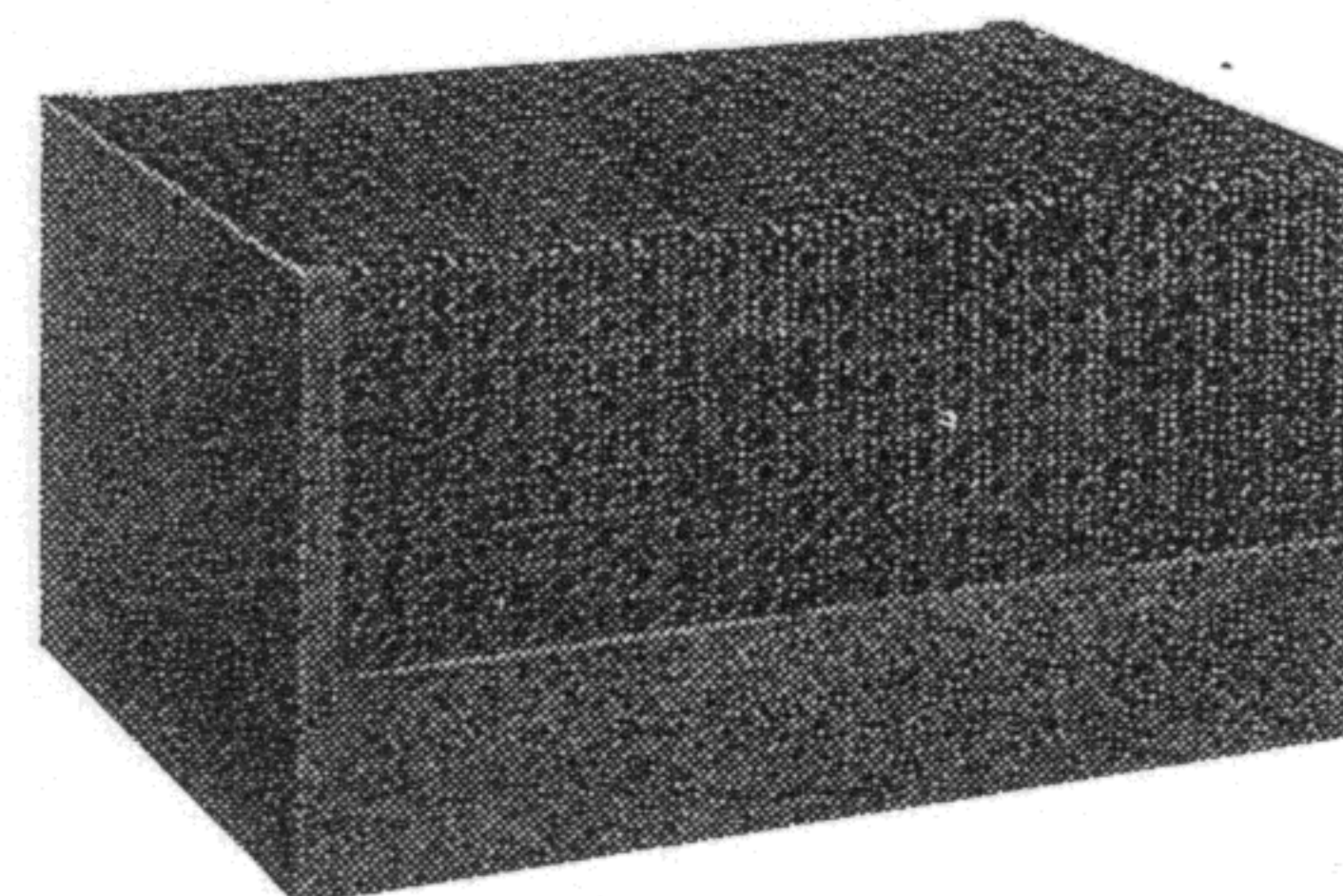
A popular size one piece chassis around which all the JEFFERSON amplifier circuits are constructed. It enables the service man to build powerful amplifiers of finished appearance and superior performance. A simple yet effective foundation on which to economically build an amplifier of real quality.

It is a practically constructed base of heavy gauge (.050") sheet metal attractively finished on the outside in black baked crystal enamel. The inside is bright electro-galvanized to insure perfect grounding and easy soldering. The corners are reinforced and spot welded to form a unit of rigidity and strength. Each of the foundation units is provided with a series of socket holes, die punched along the central line, in which standard wafer sockets can be mounted. Sockets with mounting holes on $1\frac{1}{2}$ " to $1\frac{29}{32}$ " centers can be fastened in the slots provided. With each foundation unit a template is supplied which gives the correct location of all the necessary parts and the holes for mounting them. The specific amplifier circuit for which the chassis is ordered determines which template shall be included.

Size $11"$ x $17"$ x $3\frac{3}{8}"$ high. Weight 6 lbs.

JEFFERSON AMPLIFIER COVER

To protect the parts of the custom built JEFFERSON amplifier from breakage and pilferage and to improve its appearance, an attractive cover is provided which fits snugly over any of the above listed bases. It is made from heavy gauge perforated metal and is finished with the same black enamel that is applied to the bases. Provision is made for fastening it at the ends leaving the sides of the chassis clear for any controls that are necessary.



Size $11\frac{1}{4}"$ x $17\frac{3}{8}"$ x $6\frac{3}{8}"$ high. Shipping weight 8 lbs. Cat. No. 469-201.



JEFFERSON AMPLIFIER CIRCUITS

CLASS B "59" AMPLIFIER— BULLETIN PA-2

Power Output: 15 to 20 watts Gain: 80 DB
 Frequency Response: ± 2 DB 50 to 10,000 Wycles
 Hum Level: 40 DB below zero level (.006 watts)

For tonal quality, fidelity of reproduction and exceptional volume this class "B" "59" amplifier is unsurpassed. A resistance coupled stage consisting of a "57" tube is employed to provide high gain.

2B6 AMPLIFIER—BULLETIN PA-4

Power Output: 10 to 15 watts Gain: 67 DB
 Frequency Response: ± 1 DB 30 to 10,000 cycles
 Hum Level: 45 DB below zero level (.006 watts)

A circuit which realizes all the advantages of the 2B6 tube has been designed by Jefferson engineers to deliver 10 watts of audio power with an extremely flat frequency response.

2A3 AMPLIFIER—BULLETIN PA-5

Power Output: 15 to 25 watts Gain: 72 DB
 Frequency Response: ± 2 DB 40 to 10,000 cycles
 Hum Level: 20 DB below zero level (.006 watts)

The amplifier is a development of the Jefferson laboratory and is designed to and actually develops the full listed output of the 2A3 tubes.

P.P.P. "45" AMPLIFIER—BULLETIN PA-6

Power Output: 38 watts Gain: 83 DB
 Frequency Response: ± 2 DB 50 to 10,000 cycles
 Hum Level: 24 DB below zero level (.006 watts)

Simple to construct and highly efficient in operation, this Jefferson foundation kit provides an economical and very suitable amplifier for use in large halls, schools, auditoriums, and for small outdoor installations for amusement parks, baseball parks, dance pavilions, etc.

HIGH GAIN 2A3 AMPLIFIER— BULLETIN PA-8

Power Output: 15 to 25 watts Gain: 120 DB
 Frequency Response: ± 2 DB 40 to 10,000 cycles
 Hum Level: 39 DB below zero level (.006 watts)

This modern amplifier circuit is a modification of the earlier "2A3" amplifier. The full power output of 15 watts normal is secured through the use of "56" drivers and the special Jefferson driver transformer.

6A6 CONVERTIBLE AMPLIFIER— BULLETIN PA-9

Power Output: 20 watts Gain: 80 DB
 Frequency Response: ± 2 DB 40 to 10,000 cycles
 Hum Level: 19 DB below zero level (.006 watts)

This powerful convertible amplifier of practical construction is particularly well suited for public address work where the amplifier is to be adaptable for mobile duty operating from a 6 volt direct current source and as an AC amplifier using the 110 volts 60 cycle line as a source.

6F6 AMPLIFIER—BULLETIN PA-10

Power Output: 18 watts Gain: 114 DB
 Frequency Response: ± 1 DB 60 to 10,000 cycles
 Hum Level: 25 DB below zero level (.006 watts)

This powerful amplifier uses the modern metal tubes—6J7, 6C5, 5Z4, and 6F6—in a circuit which gives a full 18 watts output with either a high or moderate gain input.

6B5 AMPLIFIER—BULLETIN PA-11

Power Output: 20 watts Gain: 130 DB
 Frequency Response: ± 1 DB 40 to 12,000 cycles
 Hum Level: 45 DB below zero level (.006 watts)

A circuit employing the popular 6B5 tubes in push pull to give a powerful 20 watt amplifier. The tremendous gain is secured by cascading triode connected 6C6's and a 6A6.

6L6 AMPLIFIER—BULLETIN PA-12

Power Output: 60 watts Gain: 120 DB
 Frequency Response: ± 2 DB 30 to 10,000 cycles
 Hum Level: 22 DB below zero level (.006 watts)

This Jefferson amplifier circuit employs the new 6L6 BEAM POWER tubes in push pull Class AB₂ to give a powerful 60 watt output with high power sensitivity and high efficiency.

P.P.P. 6L6 AMPLIFIER—PA-13

Power Output: 120 watts Gain: 125 DB
 Frequency Response: ± 2 DB 30 to 10,000 cycles
 Hum Level: 25 DB below zero level (.006 watts)

A circuit, the output stage of which, consists of four 6L6 BEAM POWER tubes in push pull parallel Class AB₂ has been designed to utilize to the fullest extent the capabilities of these new tubes.

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463-561	11	467-105	4	467-446	7
		467-106	4	467-447	7
464-191	9	467-113	4	467-448	5
464-201	9	467-116	4	467-449	5
464-211	9	467-117	4	467-450	5
464-221	9	467-118	4	467-451	5
464-231	9	467-164	4	467-452	7
464-241	9	467-168	5	467-453	7
464-251	9	467-170	6	467-454	5
464-261	9	467-171	6	467-455	5
464-271	9	467-175	5	467-456	6
464-281	9	467-176	6	467-457	7
464-291	9	467-177	6	467-458	5
464-301	9	467-178	3	467-459	6
464-311	9	467-181	3	467-460	6
464-321	9	467-261	3	467-461	5
464-431	9	467-262	3	467-462	5
464-441	9	467-263	3	467-491	6
464-451	9	467-271	5	467-501	4
464-461	9	467-401	4	467-502	4
		467-402	4	467-503	4
465-151	7	467-403	4	467-504	4
465-161	7	467-404	4	467-505	4
465-171	7	467-405	4	467-506	4
465-181	7	467-406	4	467-507	4
465-191	7	467-407	4	467-508	4
465-201	7	467-408	4	467-509	6
465-211	7	467-409	6	467-510	6
465-221	7	467-410	6	467-525	6
465-261	7	467-411	6	467-526	7
465-271	9	467-412	6	467-527	7
465-281	9	467-413	3	467-528	5
465-291	7	467-414	3	467-529	5
		467-415	5	467-535	6
466-125	8	467-416	6	467-536	7
466-135	8	467-417	6	467-537	5
466-190	8	467-418	4	467-538	6
466-210	8	467-420	5	467-539	5
466-220	8	467-421	3	467-540	5
466-230	8	467-422	3		
466-240	8	467-422	5		

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