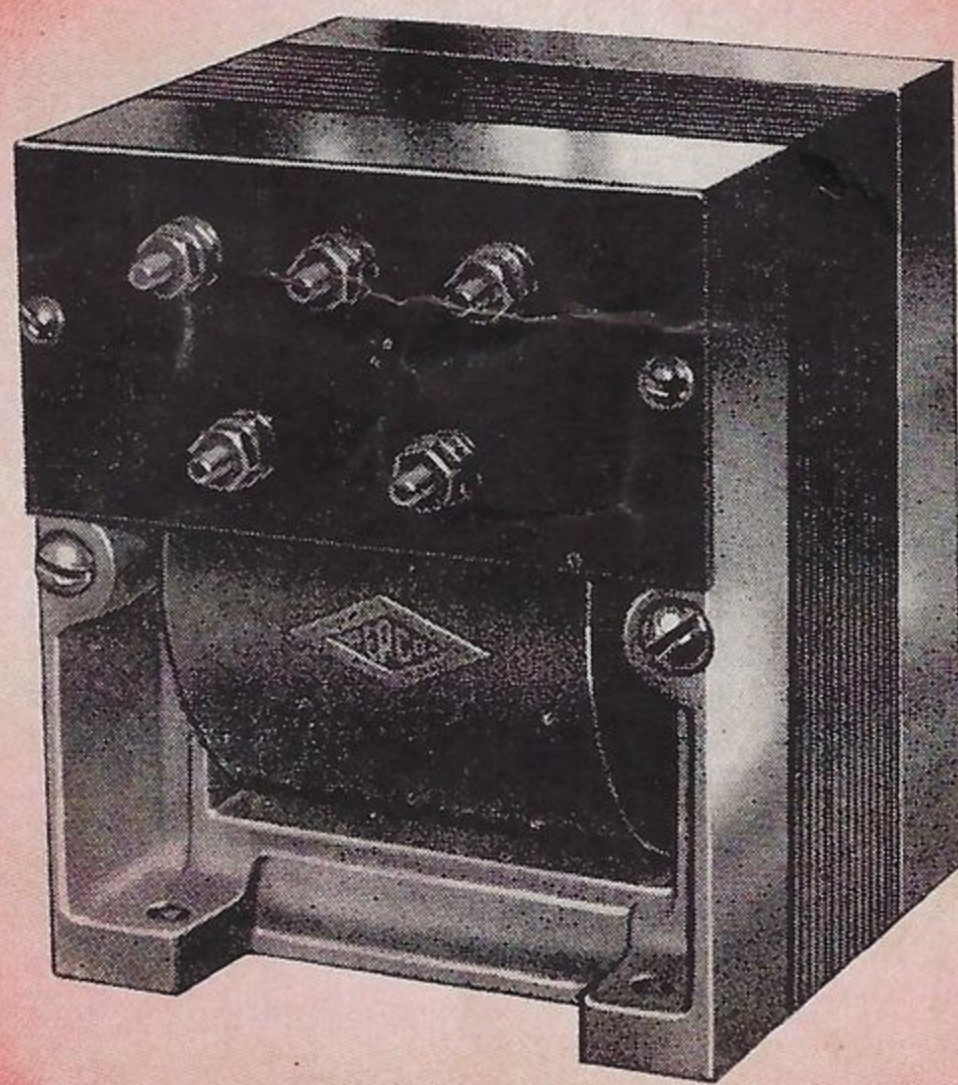


PEERLESS

TRANSFORMERS



Radio & Television Equipment Co.
207 Oak St., Santa Ana - Phone 2065

Bulletin 430

Radio, Sound, Public Address, Television

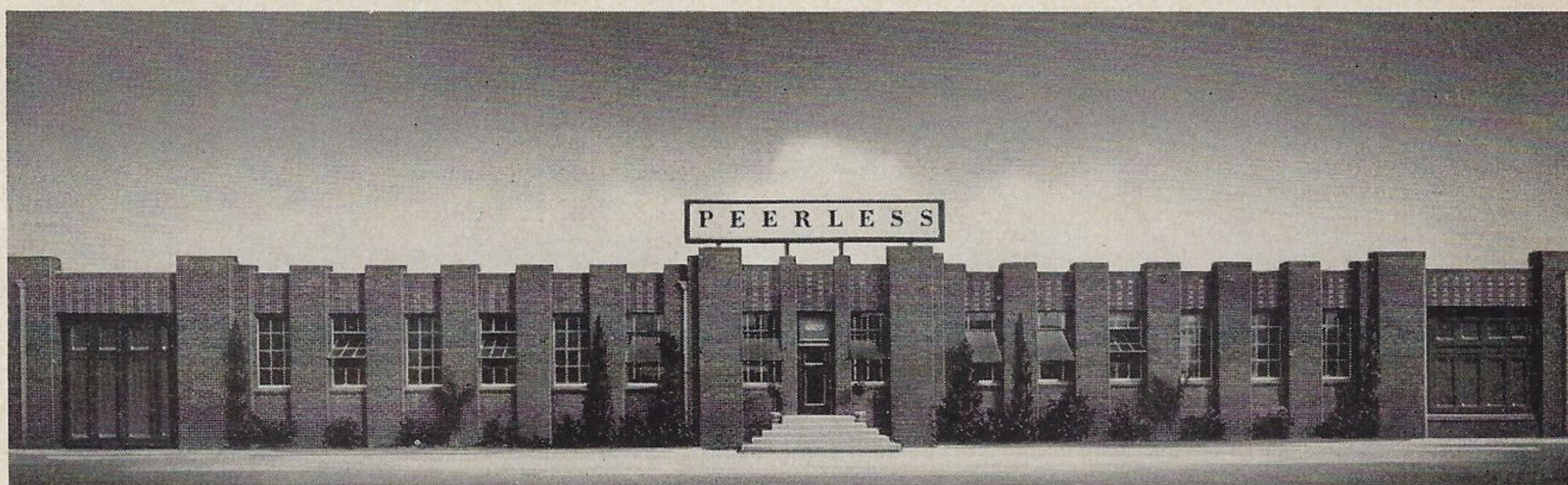
PEERLESS ELECTRICAL PRODUCTS CO.
LOS ANGELES, CALIFORNIA

TRANSFORMER INDEX

PEERLESS transformer numbers are so arranged as to indicate the type of transformer and type of mounting well as numerical sequence. The letter used as a prefix indicates the type of transformer as follows: A - audio transformer, C - choke, F - filament transformer, M - modulation transformer, P - plate transformer, R - replacement power transformer, (combined plate and filament), S - speaker coupling (or output) transformer, T - autoformer, V - vibrator transformer. The suffix letter indicates the type of case according to the illustrations throughout the catalog. The index is arranged numerically without reference to prefix or suffix letters.

Transformer	Page	List Price	Transformer	Page	List Price	Transformer	Page	List Price	Transformer	Page	List Price
S-20X	13	\$1.45	A-4221X	11	1.80	C-5123Q	8	6.30	T-8006T	9	27.50
S-23X	13	1.80	A-4222X	12	2.70	R-5127G	4	5.70	T-8007L	9	5.15
S-24X	13	1.55	A-4223X	12	3.30	R-5127A	4	5.70	T-8008K	9	23.00
S-25X	13	2.60	A-4224A	11	3.60	C-5128X	8	1.45	T-8009K	9	31.60
S-26X	13	2.60	A-4225A	11	3.90	C-5133Q	8	4.80	T-8010B	9	8.60
S-27X	11	2.40	A-4226X	12	2.70	C-5134Q	8	6.30	F-8503J	9	14.40
S-28A	13	4.30	A-4227X	11	2.00	P-5147A	7	9.90	F-8504X	9	2.00
S-29A	13	3.00	A-4228X	12	3.00	P-5148A	7	9.90	F-8505B	9	2.65
S-30A	13	4.80	A-4229Q	10	6.90	P-5149A	5 & 7	12.65	F-8506B	9	3.75
S-31X	13	1.45	A-4230Q	10	7.20	P-5150A	5 & 7	4.50	F-8507B	9	5.15
S-32X	13	1.50	A-4231Q	10	7.20	P-5151T	7	22.80	F-8509X	9	2.25
S-33X	13	1.50	A-4232Q	11	6.90	P-5152T	7	35.40	F-8510B	9	2.65
S-34X	13	1.80	A-4233Q	12	7.20	P-5153T	7	17.25	F-8511B	9	3.00
S-35X	11	1.80	A-4234Q	15	18.00	P-5154T	7	20.10	F-8512B	9	4.10
S-36Q	13	9.20	A-4235Q	15	6.90	P-5155T	7	22.80	F-8513J	9	14.40
S-37Z	13	3.30	A-4236Q	15	6.90	P-5156T	7	41.50	F-8514B	9	4.10
S-38Q	13	9.20	A-4237Q	15	9.00	P-5157T	7	54.00	F-8515J	9	11.50
S-39Q	13	9.20	A-4238Q	15	15.00	P-5158T	7	78.00	F-8516B	9	7.50
S-40Q	13	14.40	A-4239Q	12	7.20	R-5159H	5	3.80	F-8517B	9	4.80
S-73Q	13	14.40	A-4265Q	11	6.90	R-5159A	5	4.15	F-8518B	9	6.60
S-74Q	13	21.00	A-4273Q	12	7.50	R-5160H	5	6.35	F-8519T	9	9.60
S-76Q	13	6.60	A-4274Q	10	13.20	R-5160A	5	6.80	F-8520A	9	4.50
S-78A	13	3.30	A-4275Q	10	13.80	R-5161B	5	3.10	F-8521B	9	3.25
S-95Q	11	6.90	A-4276Q	11	13.80	R-5161H	5	3.10	F-8522B	9	6.00
M-2103X	15	3.90	A-4277X	10	2.35	R-5161A	5	3.45	F-8536Z	9	1.60
M-2104X	15	2.10	A-4278X	10	2.10	R-5162H	5	4.50	F-8794A	9	4.50
M-2105Q	15	18.40	A-4279X	10	2.20	R-5162A	5	4.80	V-13002A	5	4.00
M-2106T	15	24.20	A-4280X	10	2.00	R-5163H	5	5.40	V-13004B	5	3.45
M-2107T	15	31.60	A-4281X	10	2.10	R-5163A	5	5.95	V-13005A	5	5.75
M-2116T	15	45.00	A-4282X	10	2.15	R-5164A	4	4.90	V-13006A	5	7.50
M-2121T	15	78.00	A-4287X	10	2.40	R-5164G	4	4.90	C-13504X	8	1.55
M-2131Q	15	15.50	C-5067X	8	2.30	R-5165A	5	4.80	C-13505X	8	1.45
M-2133T	15	138.00	C-5067A	8	2.85	R-5165H	5	4.50	C-13506A	8	6.00
M-2134X	15	1.80	R-5069A	4	3.35	R-5166A	4	5.75	C-13506B	8	5.60
A-4078X	10	2.20	R-5069G	4	3.35	R-5166G	4	5.75	C-13507A	8	9.60
A-4079X	15	3.75	R-5090A	4	8.25	R-5166T	4	11.50	C-13507B	8	9.00
M-4080Q	15	10.90	F-5091B	9	2.65	R-5167A	4	3.10	C-13508A	8	2.85
M-4081Q	15	8.60	C-5092B	8	2.60	R-5168A	4	3.10	C-13508X	8	2.30
A-4082X	15	3.60	C-5093X	8	1.45	R-5169T	5	15.00	C-13509A	8	3.30
A-4086Q	15	9.00	R-5097A	4	4.00	R-5172A	5	7.15	C-13509X	8	2.50
A-4088Q	10	6.90	R-5097G	4	4.00	P-5182A	7	11.50	C-13510T	8	41.50
A-4091X	10	2.40	C-5099X	8	1.20	P-5196A	7	15.00	C-13511T	8	57.00
A-4092X	15	2.10	R-5112Q	5	21.60	P-5197A	7	12.65	C-13512T	8	18.00
A-4093X	15	2.10	R-5113A	4	7.15	R-5212A	4	9.30	C-13513B	8	4.35
A-4094X	15	1.90	R-5114A	4	11.70	R-5213Q	5	9.60	C-13513A	8	5.00
A-4095X	15	1.90	R-5119T	4	8.65	R-5406A	4	3.10	C-13514T	8	18.00
A-4096X	11	2.20	R-5120G	4	7.15	R-5406H	4	2.75	C-13515B	8	9.00
A-4097X	11	3.00	R-5120T	4	14.40	T-8002B	9	15.50	C-13516T	8	43.80
A-4098X	12	1.80	R-5121T	4	16.20	T-8003L	9	6.90	C-13517X	8	1.10
A-4099X	15	2.10	F-5122A	9	3.30	T-8005T	9	15.80	C-13519T	8	12.35
									C-13530Q	8	7.35

GUARANTEE: Peerless transformers are guaranteed against failure due to defective workmanship or material. Inoperative transformers returned to us prepaid within one year from the time of sale will be examined; and, if found defective, will be repaired or replaced. The Peerless Electrical Products Company cannot assume responsibility for associated equipment or other material which may be damaged due to use of such defective transformers. Present manufacturing conditions frequently force changes in materials used in standard types of transformers, sometimes causing variations from dimensions given in this catalog. Such changes are held to a minimum, and we cannot be responsible for delays or inconvenience which may be so caused. Prices subject to change without notice.



The Peerless Electrical Products Company was first established in 1934 and has shown steady growth since that time despite the difficulties inherent to incidence during a world-wide depression. This growth has been solidly based upon a realization of the necessity for continued customer good will founded upon quality of merchandise, aggressive leadership in technical development, and upon a sales policy of close cooperation with the customer's needs.

During this time Peerless engineers have been responsible for many developments of extreme value to the industry. Some of these are still exclusive with our organization. The winding and impregnation equipment used in the manufacture of Peerless transformers was developed in our own machine shop to the designs of Peerless engineers, and much of the success of Peerless in the manufacture of difficult specifications is due to the superior design of this equipment. Original designs of Peerless engineers include outstanding mechanical designs. (Case Q page 10, Case T page 7, Case K page 1, the terminal panel on Case H page 4.) Peerless engineers did the first commercial work on the multiple

alloy type of shield design which has made possible wide range audio transformers for operation at extremely low levels. Also original with Peerless engineers is the 'vac-sealing' impregnation cycle which has made possible the operation of standard types of American-built transformers in the East Indies and in similar districts of high humidity and temperature. Actively continued development will keep Peerless in the forefront of American commercial development.

During World War II Peerless products have found increasing acceptance due to our ability to meet difficult specifications and to maintain, and increase, heavy production schedules. In a six month period the entire factory has been re-tooled for operation on war products, and production has been tripled.

This catalog is presented to the trade in the hope that it will be of assistance to those who are at present our only customers: those engaged in the war effort, in their layout of designs which may be quickly put into production due to immediate availability of these components.

"LOOK FOR THE



MONOGRAM"

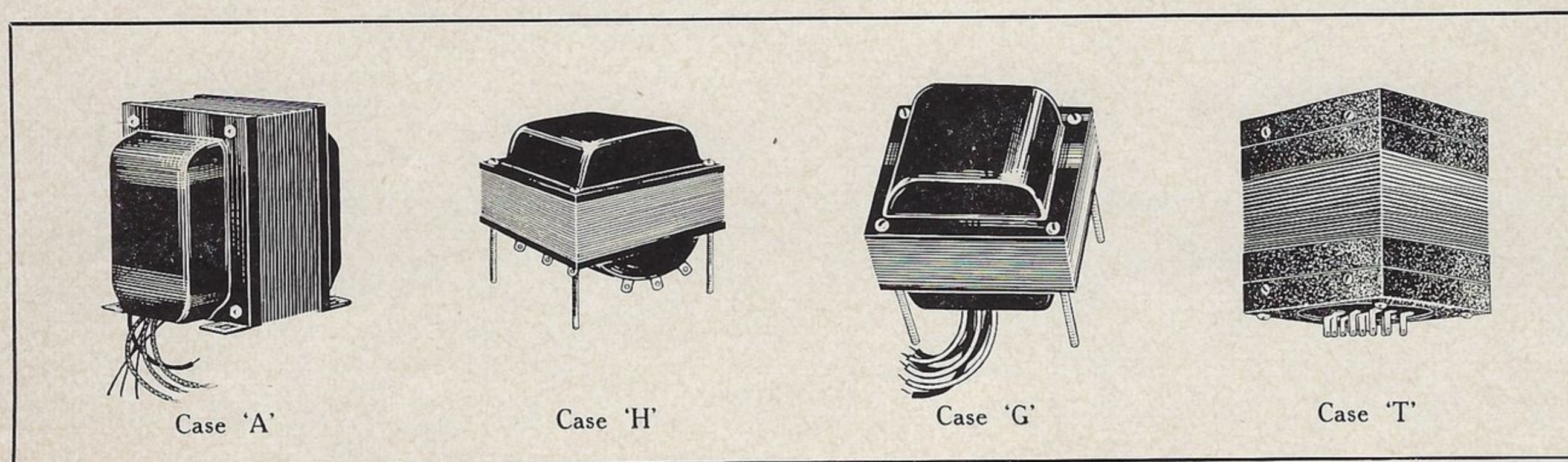
PEERLESS ELECTRICAL PRODUCTS CO.

6920 McKINLEY AVENUE, LOS ANGELES, CALIFORNIA -

ALL PHONES THornwall 3194

PEERLESS POWER TRANSFORMERS

Combined Plate and Filament



Peerless combined plate and filament type power transformers have numerous uses for replacement and for use in original equipment. Several attractive types of mountings are available to permit the best physical layouts for each individual design. Liberal use of the best materials insures cool-running, long-lived transformers. All transformers in this group are supplied with a static shield which is grounded to the case and core.

Single 6.3 Volt Filament

Type No.	Secondary		Filament Windings			Dimensions - In.			Wt. lbs.	Code Word	List Price
	AC Volts	DC Ma.	No. 1	No. 2	No. 3	H.	W.	D.			
R-5406H	660 CT.	40	5V-2A	6.3V-1.3A CT.		3 $\frac{1}{8}$	2 $\frac{5}{8}$	2	2	Crept	2.75
R-5406A	660 CT.	40	5V-2A	6.3V-1.3A CT.		3 $\frac{1}{8}$	2 $\frac{5}{8}$	2 $\frac{1}{16}$	2 $\frac{1}{4}$	Cress	3.10
R-5167A	580 CT.	40	5V-2A	6.3V-1.85 CT.		3 $\frac{1}{8}$	2 $\frac{5}{8}$	3	2 $\frac{1}{4}$	Avfzu	3.10
R-5168A	660 CT.	50	6.3V-2.5V			3 $\frac{1}{8}$	2 $\frac{5}{8}$	3	2 $\frac{1}{2}$	Acgau	3.10
R-5069A	660 CT.	50	5V-2A	6.3V-1.6A CT.		3 $\frac{1}{8}$	2 $\frac{5}{8}$	2 $\frac{5}{8}$	2 $\frac{1}{2}$	Cover	3.35
R-5069G	660 CT.	50	5V-2A	6.3V-1.6A CT.		2 $\frac{5}{8}$	2 $\frac{5}{8}$	3 $\frac{1}{8}$	2 $\frac{1}{2}$	Zesgi	3.35
R-5097A	700 CT.	75	5V-3A	6.3V-2.5A CT.		3 $\frac{5}{8}$	3 $\frac{3}{16}$	3	3 $\frac{1}{2}$	Zeibd	4.00
R-5097G	700 CT.	75	5V-3A	6.3V-2.5A CT.		3	3 $\frac{3}{16}$	3 $\frac{5}{8}$	3 $\frac{1}{2}$	Zehux	4.00
R-5119T	700 CT.	75	5V-3A	6.3V-2.5A CT.		3 $\frac{1}{4}$	3 $\frac{1}{8}$	3 $\frac{1}{2}$	4 $\frac{1}{4}$	Avbut	8.65
R-5164A	700 CT.	85	5V-3A	6.3V-3.5A CT.		3 $\frac{5}{8}$	3 $\frac{3}{16}$	3 $\frac{1}{8}$	3 $\frac{3}{4}$	Croak	4.90
R-5164G	700 CT.	85	5V-3A	6.3V-3.5A CT.		3 $\frac{1}{8}$	3 $\frac{3}{16}$	3 $\frac{5}{8}$	3 $\frac{3}{4}$	Zejhj	4.90
R-5166A	700 CT.	120	5V-3A CT.	6.3V-4.8A CT.		4 $\frac{1}{8}$	3 $\frac{3}{4}$	3 $\frac{5}{8}$	5 $\frac{3}{4}$	Auzaa	5.75
R-5166G	700 CT.	120	5V-3A CT.	6.3V-4.8A CT.		3 $\frac{5}{8}$	3 $\frac{3}{4}$	4 $\frac{1}{8}$	5 $\frac{3}{4}$	Auzbb	5.75
R-5166T	700 CT.	120	5V-3A CT.	6.3V-4.8A CT.		4 $\frac{1}{4}$	3 $\frac{1}{2}$	4 $\frac{1}{8}$	7	Avbvz	11.50
R-5090A	825 CT.	200	5V-3A CT.	6.3V-6A CT.		4 $\frac{1}{4}$	3 $\frac{3}{4}$	4 $\frac{1}{4}$	7	Anode	8.25

6.3 and 2.5 Volt Filaments

R-5127A	750 CT.	110	5V-3A CT.	6.3V-5A CT.	2.5V-3.5A CT.	4	3 $\frac{3}{4}$	3 $\frac{1}{2}$	5 $\frac{1}{4}$	Zehvy	5.70
R-5127G	750 CT.	110	5V-3A CT.	6.3V-5A CT.	2.5V-3.5A CT.	3 $\frac{1}{2}$	3 $\frac{3}{4}$	4	5 $\frac{1}{4}$	Zesik	5.70
R-5113A	750 CT.	160	5V-4A CT.	6.3V-5A CT.	2.5V-5A CT.	4 $\frac{1}{8}$	3 $\frac{3}{4}$	4 $\frac{5}{16}$	8	Zejdf	7.15
	850 CT.										
R-5120G	750 CT.	160	5V-4A CT.	6.3V-5A	2.5V-5A CT.	4 $\frac{5}{16}$	3 $\frac{3}{4}$	4 $\frac{1}{8}$	8	Autel	7.15
	850 CT.										
R-5120T	750 CT.	160	5V-4A CT.	6.3V-5A CT.	2.5V-5A CT.	4 $\frac{7}{8}$	3 $\frac{1}{2}$	4 $\frac{1}{8}$	9	Avbyx	14.40
	850 CT.										

One 6.3 and One 2.5 Volt Filament (WITH 80 VOLT BIAS TAP)

R-5212A	750 CT. 850 CT.	200	5V-4A CT.	6.3V-5.7A CT.	2.5V- 7A CT.	5	4 $\frac{3}{8}$	3 $\frac{7}{8}$	9	Cramp	9.30
R-5114A	750 CT.	300	5V-4A CT.	6.3V-5A CT.	2.5V-10A CT.	5	4 $\frac{3}{8}$	4 $\frac{1}{2}$	10 $\frac{1}{2}$	Zehhk	11.70
	850 CT.										
R-5121T	750 CT. 850 CT.	300	5V-4A CT.	6.3V-5A CT.	2.5V-10A CT.	5	4 $\frac{1}{4}$	4 $\frac{7}{8}$	12	Avbzy	16.20

6.3, 2.5, and 7.5 Volt Filaments

Type No.	Secondary		Filament Windings			Dimensions - In.			Wt. lbs.	Code Word	List Price
	AC Volts	DC Ma.	No. 1	No. 2	No. 3	H.	W.	D.			
R-5169T	1200 CT.	150	7.5/6.3V-3A	7.5/5/2.5V-3A	6.3/2.5V 3.5/8.5A	4 $\frac{3}{4}$	4 $\frac{1}{4}$	5	11	Avbpo	\$15.00

Single 2.5 Volt Filament

R-5161H	700 CT.	50	5V-2A	2.5V-5A CT.		2 $\frac{3}{4}$	2 $\frac{5}{8}$	3 $\frac{1}{8}$	2 $\frac{1}{2}$	Zeseg	3.10
R-5161B	700 CT.	50	5V-2A	2.5V-5A CT.		3 $\frac{1}{8}$	2 $\frac{5}{8}$	2 $\frac{3}{4}$	2 $\frac{1}{4}$	Zehsv	3.10
R-5161A	700 CT.	50	5V-2A	2.5V-5A CT.		3 $\frac{1}{8}$	2 $\frac{5}{8}$	2 $\frac{3}{4}$	2 $\frac{1}{2}$	Cadge	3.45
R-5159H	700 CT.	75	5V-3A CT.	2.5V-9A CT.		3 $\frac{1}{2}$	3 $\frac{1}{4}$	3 $\frac{1}{8}$	3 $\frac{1}{2}$	Zeikm	3.80
R-5159A	700 CT.	75	5V-3A CT.	2.5V-9A CT.		3 $\frac{1}{2}$	3 $\frac{1}{8}$	3	3 $\frac{1}{2}$	Crime	4.15
R-5165H	700 CT.	90	5V-3A CT.	2.5V12.5A CT.		3 $\frac{3}{8}$	3 $\frac{1}{8}$	3 $\frac{5}{8}$	3 $\frac{3}{4}$	Auyza	4.50
R-5165A	700 CT.	90	5V-3A CT.	2.5V12.5A CT.		3 $\frac{1}{2}$	3 $\frac{1}{8}$	3 $\frac{1}{4}$	4	Auyyz	4.80

Two 2.5 Volt Filaments

R-5162H	700 CT.	85	5V-3A	2.5V-3.5A CT.	2.5V-9A	3 $\frac{1}{2}$	3 $\frac{1}{4}$	3 $\frac{1}{2}$	4 $\frac{1}{4}$	Crimp	4.50
R-5162A	700 CT.	85	5V-3A	2.5V-3.5A CT.	2.5V-9A	3 $\frac{1}{2}$	3 $\frac{1}{4}$	3 $\frac{1}{2}$	4 $\frac{1}{4}$	Crisp	4.80
R-5163H	700 CT.	110	5V-3A CT.	2.5V-3.5A CT.	2.5V-12.5A	3 $\frac{1}{2}$	3 $\frac{3}{4}$	4 $\frac{1}{8}$	5	Zesbd	5.40
R-5163A	700 CT.	110	5V-3A CT.	2.5V-3.5A CT.	2.5V-12.5A	4 $\frac{1}{8}$	3 $\frac{3}{4}$	3 $\frac{1}{2}$	5 $\frac{3}{4}$	Zehos	5.95
R-5172A	850 CT. 750 CT.	160	5V-3A CT.	2.5V-5A CT.	2.5V-9A	4 $\frac{1}{8}$	3 $\frac{3}{4}$	4 $\frac{1}{2}$	8	Zehpt	7.15
R-5160H	750 CT.	100	5V-2A	2.5V-3.5A CT.	2.5V-16A	3 $\frac{1}{2}$	3 $\frac{5}{8}$	4 $\frac{1}{4}$	5	Crony	6.35
R-5160A	750 CT.	100	5V-2A	2.5V-3.5A CT.	2.5V-16A	4 $\frac{1}{8}$	3 $\frac{5}{8}$	3 $\frac{1}{2}$	5 $\frac{1}{4}$	Cross	6.80

Bias and Field Supply Transformers

P-5150A	440 CT. or 220 CT.	160	5V-3A CT.			3 $\frac{1}{2}$	3 $\frac{3}{16}$	3 $\frac{3}{8}$	4 $\frac{1}{2}$	Braid	4.50
P-5149A	600 CT. or 300 CT.	500	5V-6A CT.			5	4 $\frac{1}{4}$	4 $\frac{5}{8}$	11 $\frac{1}{4}$	Autua	12.65

Power Transformers for Cathode— Ray and Television

R-5213Q	1500 (1950 D.C.)	10	6.3/2.5V- .6/2.1A	2.5V-2.1A	2.5V-2.1A	4 $\frac{1}{2}$	2 $\frac{7}{8}$	3 $\frac{1}{8}$	3 $\frac{1}{2}$	Avajj	9.60
R-5112Q	4600 (6000 D.C.)	10	2.5V-5A	2.5V-2.1A		5 $\frac{1}{2}$	3 $\frac{7}{8}$	4 $\frac{3}{8}$	7 $\frac{1}{2}$	Avall	21.60

All of the above transformers are for operation on 105-135 volts, 50-60 cycles. Any of them may be supplied for 220 volt operation or for 25 cycle, or both. For 220 volt, increase price 15%; for 25 cycle, 60%; and for 220 volt, 25 cycle, 60% and 15%.

Vibrator Transformers—For Battery Operation

Primary Operates on 6 Volts DC Interrupter.

Type No.	DC Volts	DC Mills	Dimensions - In.			Wt. lbs.	Code Word	List Price
			H.	W.	D.			
V-13004B	200	40	2 $\frac{3}{4}$	2 $\frac{5}{16}$	2 $\frac{3}{4}$	1 $\frac{3}{4}$	Crust	3.45
V-13002A	250	60	3 $\frac{1}{8}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$	Autek	4.00
V-13005A	300	100	3 $\frac{7}{8}$	3 $\frac{1}{4}$	3 $\frac{3}{8}$	4 $\frac{1}{4}$	Avcaay	5.75
V-13006A	400	150	4 $\frac{1}{8}$	3 $\frac{3}{4}$	4 $\frac{1}{8}$	7 $\frac{1}{2}$	Avcaa	7.50

POWER SUPPLY DESIGN

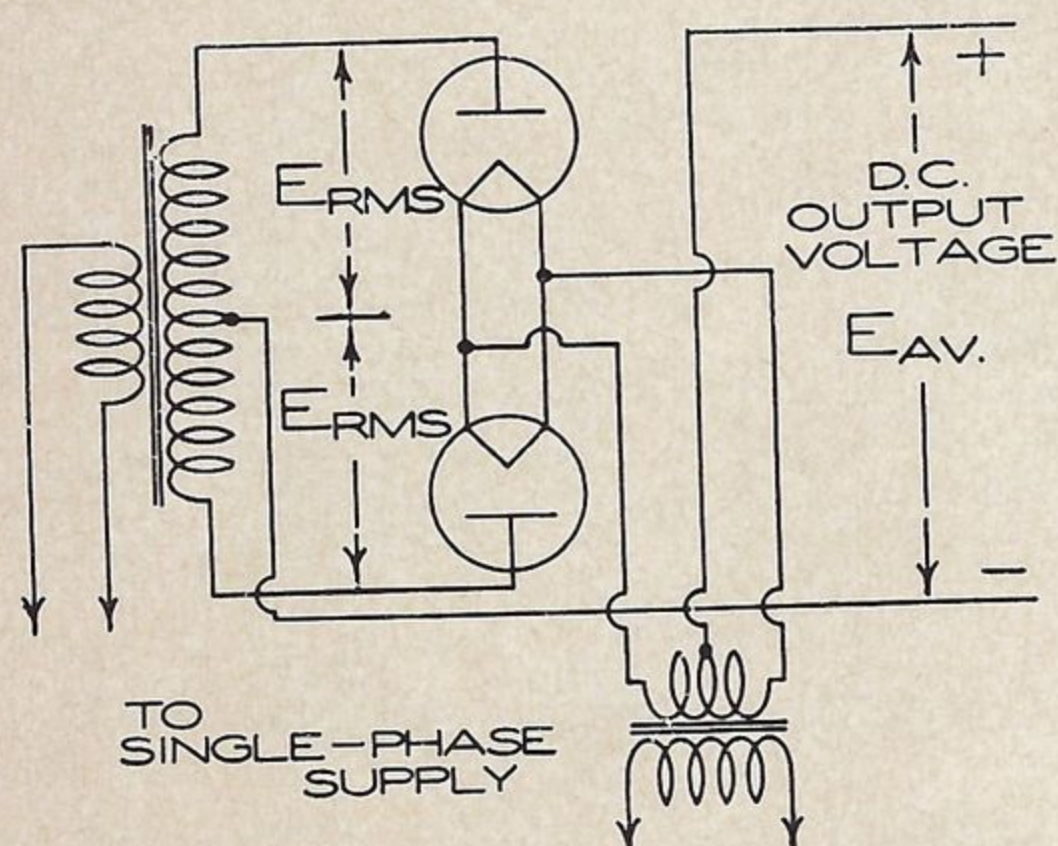


Fig. 1 — Single-Phase Full-Wave Rectifier

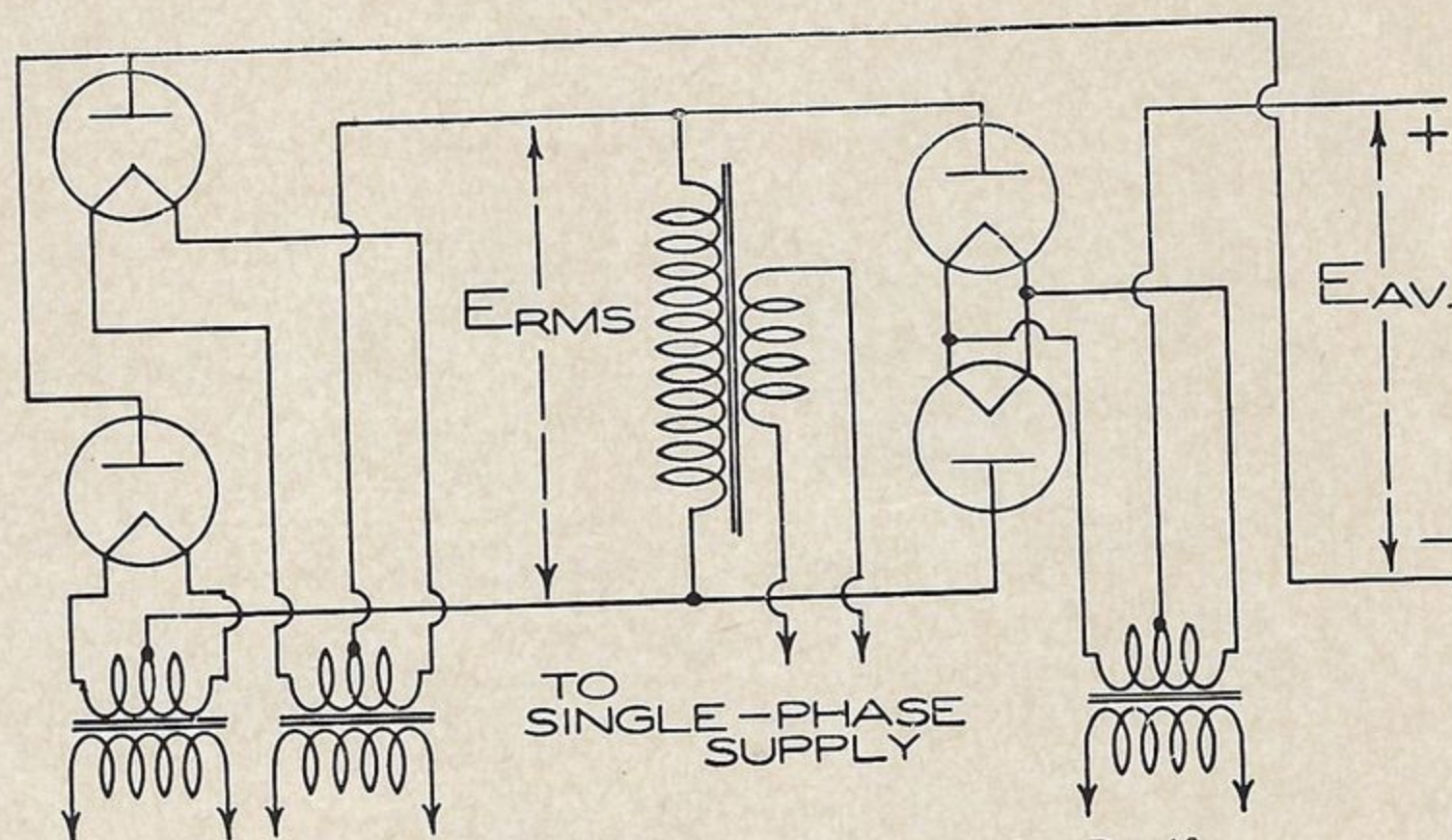


Fig. 2 — Single-Phase Full-Wave Bridge Rectifier

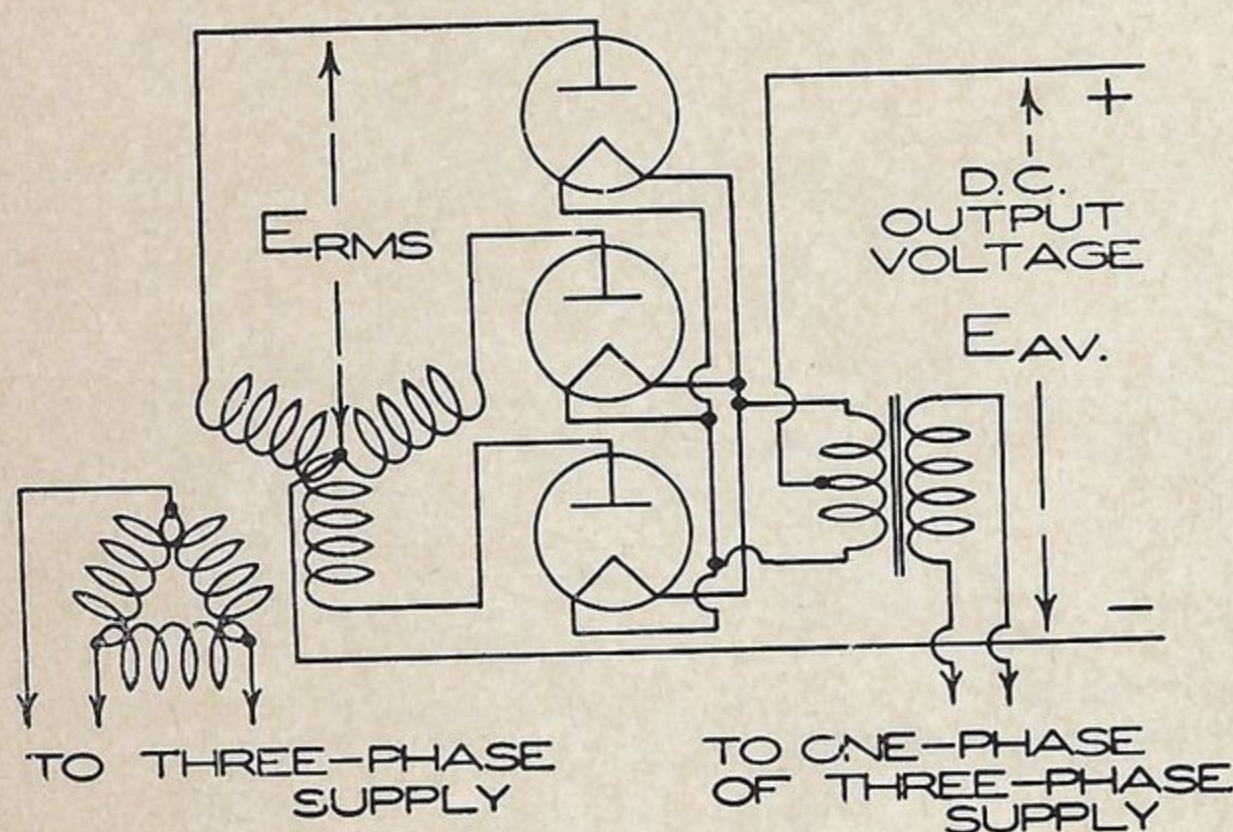


Fig. 3 — Three-Phase Half-Wave Rectifier

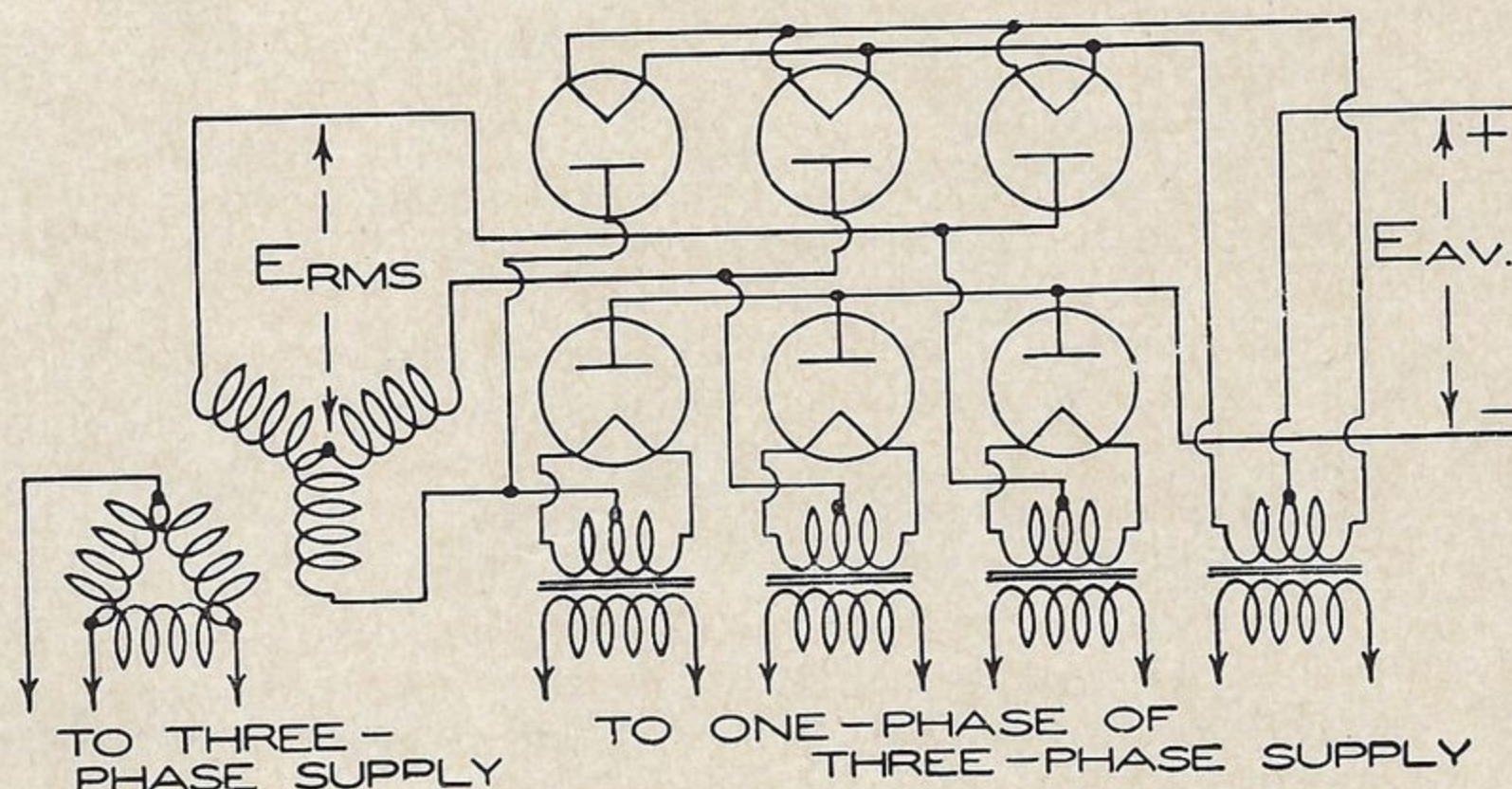


Fig. 4 — Three-Phase Full-Wave Rectifier

The diagrams illustrate the four most popular ways in which Peerless transformers may be connected to obtain DC from the AC line. In these circuits the following formulae may be used to calculate the circuit constants. It must be remembered that the circuits are based on choke input construction but that the value of E_{av} does not include any allowance for choke IR drop. $E_{max.}$ and $I_{max.}$ are the maximum values which should be taken from the rectifier tubes selected for the circuit.

Single phase full-wave rectifier (Fig. 1)

$$\begin{aligned} E_{rms} &= 1.11 E_{av.} \\ E_{av.} &= .9 E_{rms} \\ E_{max.} &= .535 \times \text{Max. peak inverse voltage for tube.} \\ I_{max.} &= 2 \times \text{max. average plate current per tube.} \\ \text{Ripple frequency} &= 2 \times \text{line frequency.} \end{aligned}$$

3 phase half-wave rectifier (Fig. 3)

$$\begin{aligned} E_{rms} &= .855 E_{av.} \\ E_{av.} &= 1.17 E_{rms} \\ E_{max.} &= .408 \times \text{Max. peak inverse voltage per tube.} \\ I_{max.} &= 3 \times \text{max. average plate current per tube.} \\ \text{Ripple frequency} &= 3 \times \text{line frequency.} \end{aligned}$$

Single phase full-wave bridge rectifier (Fig. 2)

$$\begin{aligned} E_{rms} &= 1.11 E_{av.} \\ E_{av.} &= .9 E_{rms} \\ E_{max.} &= .706 \times \text{max. peak inverse voltage for tube.} \\ I_{max.} &= 2 \times \text{max. average plate current per tube.} \\ \text{Ripple frequency} &= 2 \times \text{line frequency.} \end{aligned}$$

3 phase full-wave rectifier (Fig. 4)

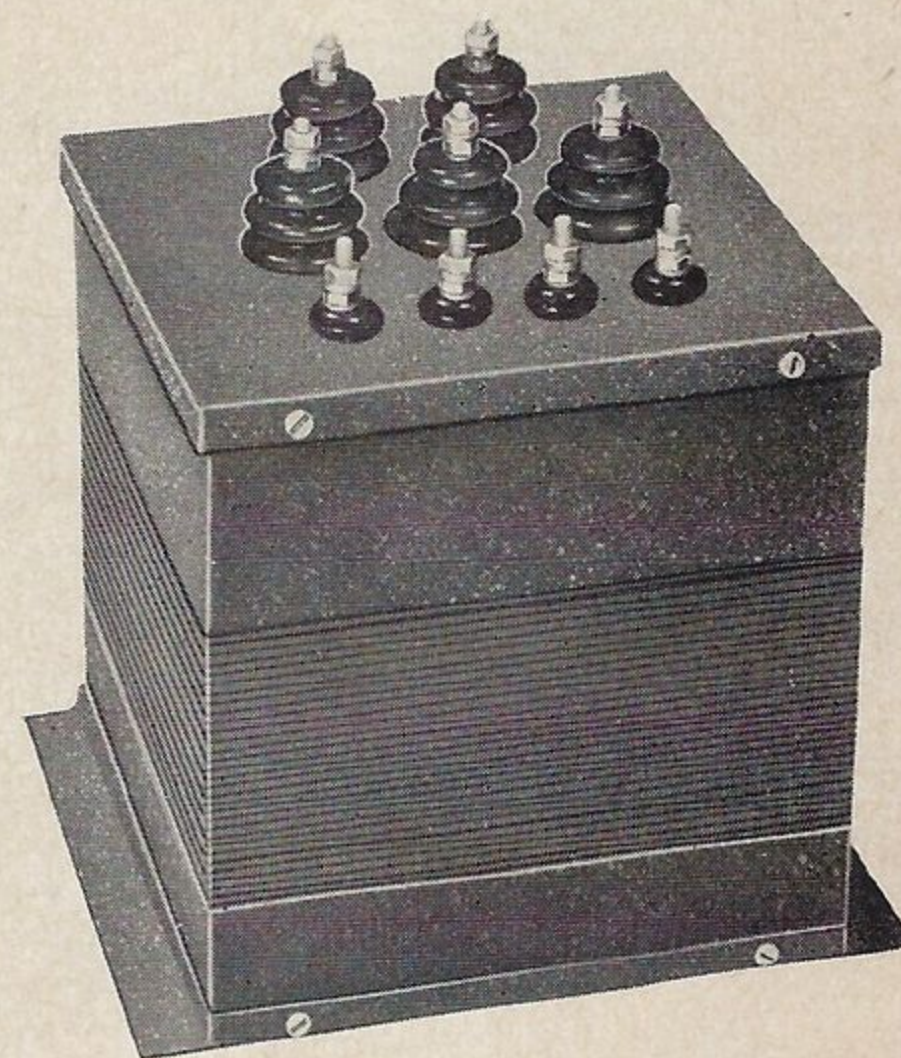
$$\begin{aligned} E_{rms} &= .428 E_{av.} \\ E_{av.} &= 2.34 E_{rms} \\ E_{max.} &= .408 \times \text{Max. peak inverse voltage for tube.} \\ I_{max.} &= 3 \times \text{max. average plate current per tube.} \\ \text{Ripple frequency} &= 6 \times \text{line frequency.} \end{aligned}$$

PLATE SUPPLY TRANSFORMERS

PEERLESS plate transformers are constructed from the best in silicon core steels, enameled copper wire, and high quality insulating materials to provide a product capable of continued long life under the most difficult conditions of heat and humidity. The "T" series case used in many of this group combines excellent moisture-proofing due to Peerless "vac-sealing" and compound-filled construction, with good heat radiation characteristics due to exposed laminations, and freedom from insulation break down because of the larger space allowed for terminals.

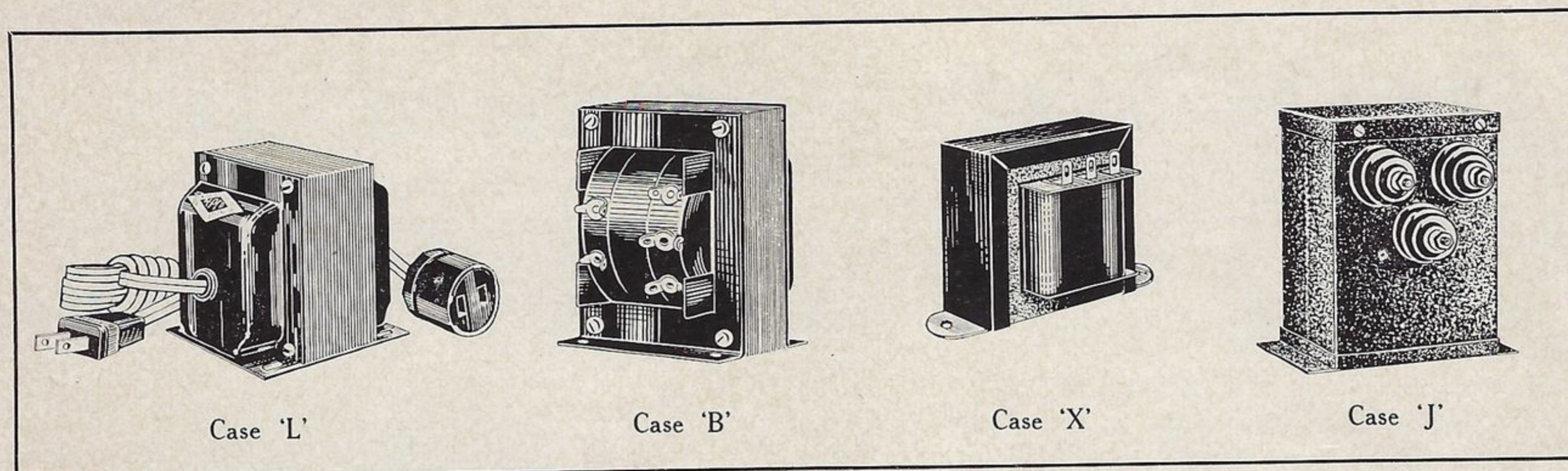
It will be noted that two current ratings are given for PEERLESS plate transformers. In intermittent service, such as cw. telegraphy, diathermy, etc. the "Int. Amp." column may be used. For continuous or near continuous service at ordinary temperature the "Cont. Amp." ratings should be applied. If for any reason the transformer is to be operated continuously in restricted space or at high ambient temperatures, it may be necessary to reduce even these ratings by as much as 25%.

Where especially good regulation is desired, as for Class B Audio, it is best to reduce resistance in the circuit by using transformers and chokes of higher current rating, and hence of lower resistance, than is normally necessary. Power supplies of higher voltage will show relatively less percentage of voltage regulation for the same current change than will lower voltage supplies of the same wattage output.



Type No.	Primary Volts	Secondary				Dimensions - In.			Wt. lbs.	Code Word	List Price
		DC. Volts	Cont. Amp.	Int. Amp.	AC. Volts	H.	W.	D.			
P-5150A	115	90 or 180	.160 3.0	.190	440-220 CT. 5 CT.	3 1/2	3 5/16	3 3/8	4 1/2	Braid	\$4.50
P-5149A	115	125 or 250	.500 6.0	.600	600-300 CT. 5 CT.	5	4 3/8	4 5/8	11 1/4	Autua	12.65
P-5147A	115	400	.250 3.0	.300	1110 CT. 5 CT.	5	4 3/8	4 1/8	9 1/2	Board	9.90
P-5148A	115	525	.225	.270	1400 CT.	5	4 3/8	4 3/8	10 1/2	Boast	9.90
P-5182A	115	600	.300	.360	1500 CT.	5	4 3/8	4 5/8	10 1/2	Avcki	11.50
P-5153T	115	600 or 750	.300	.360	1550-1940 CT.	7 1/2	5 1/4	7 1/2	22 1/2	Bland	17.25
P-5197A	115	750	.300	.360	1872 CT.	5	4 3/8	5 1/2	12	Avcom	12.65
P-5154T	115	750 or 1000	.300	.360	1700-2560 CT.	7 1/2	5 1/4	8	25	Bolas	20.10
P-5196A	115	1000	.300	.360	2428 CT.	5	4 3/8	6 1/4	15	Avcro	15.00
P-5151T	115	1000 or 1250	.350	.420	2460-3120 CT.	9 1/2	5 1/4	7 1/2	31	Blast	22.80
P-5152T	115	1000 or 1250	.500	.600	2476-3120 CT.	8 1/2	8 3/8	6	49	Bliss	35.40
P-5155T	115	1000 or 1500	.300	.360	2360-3630 CT.	9 1/2	5 1/4	7 1/2	31	Booth	22.80
P-5156T	230/115	1500 or 2000	.350	.420	3538-4810 CT.	10	10	6 1/2	72	Zenwz	41.50
P-5157T	230/115	1500 or 2000	.500	.600	3580-4720 CT.	11	10	6 1/4	85	Zejjl	54.00
P-5158T	230/115	1500 or 2000	.750	.900	3560-4720 CT.	13	11 1/4	9	127	Zejkm	78.00

All of the above transformers are for operation on 105-135 volts, 50-60 cycles. Any of them may be supplied for 220 volt operation or for 25 cycle, or both. For 220 volt increase price 15 per cent.; for 25 cycle, 60 per cent.; and for 220 volt, 25 cycle, 60 per cent. and 15 per cent.



FILTER REACTORS

PEERLESS filter chokes are designed to harmonize with PEERLESS plate transformers and filament transformers to make a well-balanced power supply of good regulation, professional appearance and long life. Designs are such as to insure low temperature rise and freedom from insulation breakdown.

Voltage insulation figures given in the table are *operating* values. All chokes are actually tested at the AIEE recommended figure of twice operating voltage plus one thousand volts.

"Swinging" Input Chokes

TWO VALUES REFER TO MAXIMUM AND BLEEDER CURRENTS.

Type No.	Current Ma.	Inductance Henries	Res. ohms	Voltage Ins.*	Dimensions - In.			Wt. lbs.	Code Word	List Price
					H.	W.	D.			
C-13513B	25/250	40/8	160	2000	3 ⁵ / ₈	3 ¹ / ₂	3 ¹ / ₄	4 ¹ / ₂	Daily	\$4.35
C-13513A	25/250	40/8	160	1000	3 ³ / ₄	4 ¹ / ₈	3 ¹ / ₈	4 ³ / ₄	Avffa	5.00
C-13515B	35/350	60/12	110	2000	4 ⁷ / ₈	4 ¹ / ₄	4	10 ¹ / ₂	Dandy	9.00
C-13514T	50/500	60/12	90	3500	8 ¹ / ₄	5 ¹ / ₄	7 ¹ / ₂	25	Death	18.00
C-13516T	75/750	40/8	60	4500	11	11	7 ¹ / ₄	77	Zeilm	43.80

Smoothing Chokes

TWO VALUES REFER TO SERIES AND PARALLEL CONNECTION.

C-13504X	35	5	180	600	1 ¹ / ₈	1 ⁵ / ₁₆	1	1/6	Avlla	1.55
C-13517X	40	6	400	600	1 ³ / ₈	2 ¹ / ₄	1 ¹ / ₈	1/2	Arass	1.10
C-5099X	40	12	420	600	1 ⁵ / ₈	2 ³ / ₈	1 ³ / ₈	3/4	Dizen	1.20
C-13505X	50	20	600	600	2	3 ¹ / ₂	2	1	Dizzy	1.45
C-5133Q	50/100	30/7.5	550/138	600	4 ¹ / ₄	2 ¹ / ₄	2 ¹ / ₂	2 ¹ / ₄	Avbba	4.80
C-5128X	85	10	375	600	2	3 ¹ / ₂	2	1	Avbaz	1.45
C-13508X	85	20	610	600	2 ⁵ / ₁₆	4	1 ³ / ₄	1 ¹ / ₂	Dodge	2.30
C-13508A	85	20	610	600	2 ³ / ₄	2 ⁵ / ₁₆	2 ⁵ / ₈	1 ³ / ₄	Avfid	2.85
C-5134Q	90/180	25/6.25	240/60	600	4 ¹ / ₄	2 ⁷ / ₈	3 ¹ / ₈	3 ¹ / ₂	Avbed	6.30
C-5093X	125	2	105	600	2	3 ¹ / ₂	2	1	Delve	1.45
C-5067X	125	12	240	600	2 ⁵ / ₁₆	4	1 ³ / ₄	1 ¹ / ₂	Doily	2.30
C-5067A	125	12	240	600	2 ³ / ₄	2 ⁵ / ₁₆	2 ⁵ / ₈	1 ³ / ₄	Avfje	2.85
C-13509X	160	8	160	600	2 ⁵ / ₁₆	4	1 ³ / ₄	1 ¹ / ₂	Zeiac	2.50
C-13509A	160	8	175	600	3 ¹ / ₄	2 ³ / ₄	3	2 ³ / ₄	Avfni	3.30
C-5123Q	175/350	10/2.5	120/30	600	4 ¹ / ₄	2 ⁷ / ₈	3 ¹ / ₈	3 ¹ / ₂	Avbfe	6.30
C-5092B	200	4	140	1500	2 ³ / ₄	2 ⁵ / ₁₆	2 ⁷ / ₈	1 ³ / ₄	Demit	2.60
C-13506B	250	20	150	2000	4 ¹ / ₈	3 ⁵ / ₈	3 ¹ / ₂	6	Donor	5.60
C-13506A	250	20	150	1000	4 ¹ / ₈	3 ³ / ₄	3 ³ / ₈	6 ¹ / ₄	Avfoj	6.00
C-13530Q	300	6	120	2000	4 ⁵ / ₈	3 ³ / ₈	3 ⁵ / ₈	5	Avbih	7.35
C-13519T	300/600	20/5	140/35	2000	6 ¹ / ₈	5 ¹ / ₈	5 ¹ / ₄	15	Avbjl	12.35
C-13507B	350	20	130	2000	4 ⁷ / ₈	4 ¹ / ₄	4 ¹ / ₄	10	Dough	9.00
C-13507A	350	20	130	1000	4 ⁷ / ₈	4 ¹ / ₄	3 ³ / ₄	11	Avfuo	9.60
C-13512T	500	20	90	3500	8 ¹ / ₄	5 ¹ / ₄	7 ¹ / ₂	25	Dowry	18.00
C-13510T	750	20	50	4500	11 ¹ / ₄	11 ¹ / ₈	7 ¹ / ₂	72	Zejbz	41.50
C-13511T	1000	10	29	4500	14 ¹ / ₄	11 ¹ / ₈	7 ¹ / ₂	101	Zeimo	57.00

FILAMENT TRANSFORMERS

Single Filament Types

Type No.	Sec. Volts	Sec. Amps.	Voltage Ins.*	Primary Volts	Dimensions - In.			Wt. lbs.	Code Word	List Price
					H.	W.	D.			
F-8504X	2.5 CT.	4	600	115	2	3 1/2	2 1/8	1	Jelly	\$2.00
F-8505B	2.5 CT.	7	600	115	2 3/4	2 5/16	2 7/8	2	Jenny	2.65
F-8521B	2.5 CT.	4	2000	105-110-115-120	2 3/4	2 5/16	2 1/2	1 1/2	Avmuh	3.25
F-8506B	2.5 CT.	10	2500	105-110-115-120	3 1/2	3 1/4	2 7/8	2 3/4	Joint	3.75
F-8515J	2.5 CT.	10	4500	105-110-115-120	7 1/4	6 3/4	7 1/4	13	Juice	11.50
F-8513J	2.5 CT.	20	4500	105-110-115-120	7 1/4	6 3/4	7 1/4	17	Auzzd	14.40
F-8510B	5 CT.	4	600	115	2 3/4	2 5/16	3	2	Jerry	2.65
F-8517B	5.25 CT.	13	1500	105-110-115-120	3 1/2	3 3/8	3 3/4	4	Jupar	4.80
F-8516B	5.25 CT.	20	1500	105-110-115-120	4 1/8	3 5/8	4	6 1/4	Jupet	7.50
F-8503J	5 CT.	20	4500	105-110-115-120	7 1/4	6 3/4	7 1/4	17	Jumbo	14.40
F-8536Z	6.3 CT.	1.0	600	115	2	1 5/8	1 1/2	3/4	Joado	1.60
F-8509X	6.3 CT.	1.8	600	115	2	3 1/2	2 1/8	1	Zesln	2.25
F-5091B	6.3 CT.	3.6	600	115	2 3/4	2 5/16	3	1 3/4	Jetty	2.65
F-5122A	6.3 CT.	5.0	600	115	3	2 1/2	2 3/4	2 1/2	Avhwo	3.30
F-8520A	6.3 CT.	8.0	600	105-110-115-120	3 1/2	3 3/16	3 3/16	3 3/4	Avmvi	4.50
F-8514B	10 CT.	5.0	1250	105-110-115-120	3 7/8	3 1/8	3 1/4	3 1/4	Jolly	4.10
F-8507B	10 CT.	10.0	1250	105-110-115-120	4 3/8	3 5/8	3 3/8	4 3/4	Joule	5.15

Tapped Single Filament Types

F-8511B	7.5/6.3 CT.	4.0	750	107-113-120	3	2 5/8	2 3/4	2	Jewel	3.00
F-8512B	7.5/6.3 CT.	8.0	1250	105-110-115-120	3 7/8	3 1/8	3 1/4	3 1/2	Joker	4.10

Multiple Filament Types

F-8794A	6.3 CT.	5	600	105-110-115-120	3 1/2	3 1/8	3 3/4	3 1/2	Avauu	4.50
	5.0 CT.	3								
F-8522B	5 CT.	6	1250	105-110-115-120	4 3/8	3 3/4	4	4 3/4	Jules	6.00
	5 CT.	3								
	5 CT.	3								
F-8518B	10 CT.	7	1250	105-115-125	4 3/8	4	3 5/8	9	Avcge	6.60
	2.5 CT.	10								
F-8519T	6.3 CT.	6	750	105-115-125	5	4 1/4	4 7/8	9 1/2	Avcig	9.60
	5 CT.	4								
	2.5 CT.	8.5								

*Operating voltage. Tested at twice operating voltage plus 1000 volts.

All of the above transformers are for operation on 105-135 volts, 50-60 cycles. Any of them may be supplied for 220 volt operation or for 25 cycle, or both. For 220 volt increase price 15 per cent.; for 25 cycle, 60 per cent.; and for 220 volt, 25 cycle, 60 per cent. and 15 per cent.

LINE VOLTAGE CORRECTING AUTOFORMERS

Step-Down Auto Transformers - 230 to 115 Volts

Type No.	Rating Va.	Dimensions - In.			Wt. lbs.	Code Word	List Price
		H.	W.	D.			
T-8007L	70	3 1/2	3 1/8	4 1/16	6	Oleum	\$5.15
T-8003L	150	4	3 11/16	3 5/8	6 1/2	Osram	6.90
T-8005T (leads)	500	6 7/16	5 5/16	5 5/8	17	Odast	15.80
T-8006T (leads)	1000	7 7/16	8 3/8	6 1/8	31	Odarn	27.50

Auto Transformers - Line Voltage Correction

Type No.	Voltages	Rating Va.	Dimensions - In.			Wt. lbs.	Code Word	List Price
			H.	W.	D.			
T-8010B	0-25-50-75-100-105-110-115-120-125	250	4 1/4	3 1/2	3 1/4	6	Zeips	8.60
T-8002B	0-25-50-75-100-105-110-115-120-125	500	4 1/4	3 3/4	4	10 1/2	Zekde	15.50
T-8008K	0-25-50-75-100-105-110-115-120-125	1000	6 3/8	5 1/8	5 1/2	23	Ziert	23.00
T-8009K	0-25-50-75-100-105-110-115-120-125	2000	6 11/16	6 1/2	7 1/2	39	Zekef	31.60

(Case K illustrated on front cover.)

PEERLESS AUDIO EQUIPMENT



Case 'Q'

For a number of years there has been a growing need for a line of audio transformers intermediate in quality and price between the "laboratory" types of extremely wide frequency range, heavy mechanical construction, multiple shielding; and the cheap replacement types comprising "just a transformer" in the simplest possible mounting. Such transformers should have most of the desirable features of the "battleship" types mechanically but could permit some reduction in frequency range and in shielding. Well-engineered designs using such transformers will give results equal to the "laboratory" types where standard microphones and speakers are used and will permit a considerable reduction in weight, size, and cost.

PEERLESS 'Q' series transformers fill these requirements. They have the following features:

Hum Reduction: Standard input transformers (A4088Q, A4265Q, etc.) are supplied in an efficient "hum-bucking" construction which reduces pickup by some 40db., sufficient for most applications. For extremely low level operation, or where excessive AC fields are present, additional shielding is available by the use of the 80db. multiple alloy shield found in types A4274Q, A4275Q, and A4276Q.

Wide Frequency Range: These units are linear within one db. over the frequency range from 50 to 10000 cycles.

Reversible Mountings: Mount from either end with 4 bolt holes and circular cut-out for sub-chassis mounting.

Solid Terminals: Heavy, rigid lugs which cannot turn in their mountings.

Low Harmonic Distortion: Low flux densities, extremely close coupling, low resistance windings, all permit very low distortion. Outstanding for Class B or AB amplifiers.

Wide Range of Specifications: In addition to the popular line of low level audio coupling units; modulation, power, filament transformers, and chokes are available in harmonizing cases to make it possible to build equipment of similar appearance throughout.

LOW IMPEDANCE INPUT TRANSFORMERS LINE, MIXER, OR MICROPHONE TO GRID.

Type No.	Application	Impedance - Ohms		Turn Ratio	Dimensions - In.			Wt. lbs.	Code Word	List Price
		Primary	Sec.		H.	W.	D.			
A-4274Q‡	Line, mixer, microphone, to grid.	50-125-200*-250-333-500*	60500	1:11	3 1/2	2 1/4	2 1/2	1 1/2	Avgke	\$13.20
A-4088Q†	Line, mixer, microphone, to grid.	125-500*	53000	1:10.3	4 1/4	2 1/4	2 1/2	2 1/4	Ausxe	6.90
A-4277X	DB. microphone to grid.	400 CT.	108000	1:16.1	2	3 1/4	1 5/8	1	Hades	2.35
A-4279X	DB. microphone to grid.	400 CT.	100000	1:15.8	1 5/8	2 3/4	1 1/2	9 oz.	Avgoi	2.20
A-4281X	DB. microphone to 1 or 2 grids	400 CT.	65000 CT.	1:12.7	1 1/8	1 5/16	1	2 1/4 oz.	Avlpe	2.10
A-4229Q†	SB or dynamic mike to grid.	50-200*	43000	1:14.7	4 1/4	2 1/4	2 1/2	2 1/4	Autta	6.90
A-4230Q†	Dynamic mike to grid.	7 1/2-30*	49500	1:40.6	4 1/4	2 1/4	2 1/2	2 1/4	Ausyf	7.20
A-4078X	SB mike to grid.	100	100000	1:31.7	2	3 1/4	1 5/8	1	Habit	2.20
A-4278X	SB mike to grid.	100	100000	1:31.7	1 5/8	2 3/4	1 1/2	9 oz.	Hugby	2.10
A-4091X	SB microphone to 1 or 2 grids. (Voice frequencies only)	100	710000 CT.	1:84	1 5/8	2 3/4	1 1/2	9 oz.	Auzpp	2.40
A-4280X	SB microphone to 1 or 2 grids.	100	82500 CT.	1:28.7	1 1/8	1 5/16	1	2 1/4 oz.	Avlui	2.00
A-4275Q‡	Line, mixer, microphone, to p.p. grids.	50-125-200*-250-333-500*	37500 CT.	1:8.75	3 1/2	2 1/4	2 1/2	1 1/2	Avgun	13.80
A-4231Q†	Line, mixer, microphone, to p.p. grids.	125-500*	53000 CT.	1:10.3	4 1/4	2 1/4	2 1/2	2 1/4	Auszg	7.20

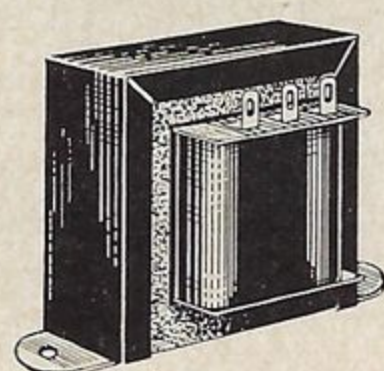
SPECIAL TRANSCEIVER TRANSFORMERS.

A-4282X	SB mike or 10000 ohm plate to grid. (2 primaries)	100 10000	43300	1:20.8 1:2	1 1/8	1 5/16	1	2 1/4 oz.	Avlym	2.15
A-4287X	SB mike or 10000 ohm plate to grid. (2 primaries)	100 10000	102000	1:32 1:2	1 5/8	2 3/4	1 1/2	9 oz.	Huffy	2.40

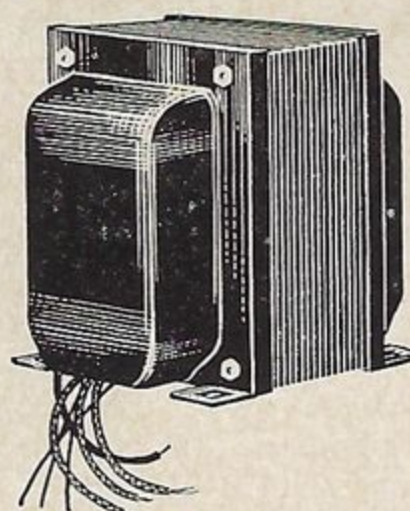
†Hum-bucking construction - 40 db. hum pickup reduction.

‡Quadruple shielding - 80 db. hum protection.

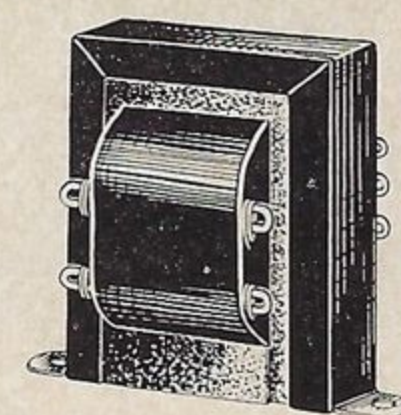
*Balanced center-tapped winding.



Case 'X'



Case 'A'



Case 'Z'

PLATE TO GRID TRANSFORMERS

Type No.	Application	Ohms Pri.	Impedance Sec.	Turn Ratio	Max. Pri. DC. - Ma.	Dimensions - In.			Wt. lbs.	Code Word	List Price
						H.	W.	D.			
A-4096X‡	10000 ohm plate to grid.	10000	90000 CT.	1:3	10	2	3 1/4	1 5/8	1	Grass	\$2.20
A-4221X‡	10000 ohm plate to grid.	10000	96000 CT.	1:3.1	8	1 5/8	2 3/4	1 1/2	9 oz.	Gamut	1.80
A-4227X‡	10000 ohm plate to grid.	10000	40000 CT.	1:2	6	1 1/8	1 5/16	1	2 1/4 oz.	Avman	2.00

‡ Secondary center-tapped for use as high ratio p.p input.

PUSH-PULL INPUT TRANSFORMERS

Type No.	Application	Ohms Pri.	Impedance Sec.	Turn Ratio	Max. Pri. DC. - Ma.	Dimensions - In.			Wt. lbs.	Code Word	List Price
						H.	W.	D.			
A-4276Q	10000 ohm plate to p.p. grids. 80 db. shielding.	10000	55000 CT.	1:2.35	6‡	3 1/2	2 1/4	2 1/2	1 1/2	Avezv	\$13.80
A-4265Q†	10000 ohm plate to p.p. grids	10000	40000 CT.	1:2	10	4 1/4	2 1/4	2 1/2	2 1/4	Autwd	6.90
A-4224A	10000 ohm plate to p.p. grids.	10000	62500 CT.	1:2.5	10	2 3/4	2 5/16	2 7/16	2	Avfav	3.60
A-4097X	Large plate to p.p. grids.	10000	22500 CT.	1:1.5	10	2 1/4	3 3/4	1 7/8	2	Gaily	3.00
A-4096X	Medium plate to p.p. grids.	10000	90000 CT.	1:3	10	2	3 1/4	1 5/8	1	Grate	2.20
A-4221X	Plate to p.p. grids.	10000	96000 CT.	1:3.1	8	1 5/8	2 3/4	1 1/2	9 oz.	Gamut	1.80
A-4227X	10000 ohm plate to p.p. grids.	10000	40000 CT.	1:2	6	1 1/8	1 5/16	1	2 1/4 oz.	Avman	2.00

† Hum-bucking construction—hum pickup reduced 40 db. ‡ Zero DC. necessary for best frequency response.

PUSH-PULL INTERSTAGE TRANSFORMERS

Type No.	Application	Ohms Pri.	Impedance Sec.	Turn Ratio	Max. Pri. DC. - Ma.	Dimensions - In.			Wt. lbs.	Code Word	List Price
						H.	W.	D.			
A-4232Q†	P.p. plates to p.p. grids	20000 CT.	20000 CT.	1:1	10‡	4 1/4	2 1/4	2 1/2	2 1/4	Autbh	\$6.90
A-4225A	P.p. plates to p.p. grids	20000 CT.	45000 CT.	1:1.5	10‡	2 3/4	2 5/16	2 7/16	2	Aveyu	3.90

† Hum-bucking construction—hum reduced 40 db. ‡ DC. effects balanced out in normal connection.

TUBE TO LINE TRANSFORMERS—LOW LEVEL

Type No.	Application	Ohms		Max. Pri. DC.-Ma.	Dimensions - In.			Wt. lbs.	Code Word	List Price
		Primary	Secondary		H.	W.	D.			
S-95Q	Single (or p.p) 6C5, 6J5, 76, 56, etc. to line or mixer	18000 CT.	50/125/200*/ 250/333/500*	10	3 1/2	2 1/4	2 1/2	1 1/2	Autxe	\$6.90
S-27X		18000	50/200/500	10	1 5/8	2 3/4	1 1/4	9 oz.	Avcwu	2.40
S-35X		8000 CT.	50/200/500	10	1 1/8	1 5/16	1	2 1/4 oz.	Avmbd	1.80

* Balanced center-tapped winding.

Type No.	Application	Inductance Henries	DC - Ma.		Resistance Ohms.	Dimensions - In.			Wt. lbs.	Code Word	List Price
			Normal	Max.		H.	W.	D.			
A-4098X	Plate reactor or series filter for 6J5, 6C5, 76, 56, etc.	275	5	10	4000	1 $\frac{5}{8}$	2 $\frac{3}{4}$	1 $\frac{1}{4}$	9 oz.	Grist	1.80
A-4226X	Plate reactor for 6F6, 42, 45, 2A3, 2A5, etc.	30	40	85	650	2 $\frac{3}{4}$	2 $\frac{5}{16}$	2 $\frac{3}{4}$	1 $\frac{3}{4}$	Avext	2.70

Peerless Output Transformers

REPLACEMENT OUTPUT TRANSFORMERS

TUBE TO VOICE COIL

Type No.	Tubes Used	Impedance - Ohms		Audio Watts	Max. Pri. DC.-Ma.	Dimensions - In.			Wt. lbs.	Code Word	List Price
		Primary	Secondary			H.	W.	D.			
S-34X	1Q5, 3Q5, 1G6, 1S4, 1S4, 3S4, 1C5	8000	2 1/2 to 4	1	15	1 1/8	1 5/16	1	2 1/4 oz.	Avmggu	\$1.80
S-20X	1 - 6F6, 6V6, 41, 6K6, 6G6, 6A4, 25A6	3500, 5000, 7000, 10000	2 to 6	5	40	1 3/8	2 1/2	1 3/8	6 oz.	Avayy	1.45
S-31X	1 - 25L6, 35L6, 50L6, 25B6	1500, 2000, 2500	2 to 6	5	60	1 3/8	2 1/2	1 3/8	6 oz.	Avgey	1.45
S-32X	1 - 1S4, 1C5, 3Q5, 1Q5, 1T5	8000, 14000	2 to 6	5	20	1 3/8	2 1/2	1 3/8	6 oz.	Avgga	1.50
S-33X	1 - 1A5	25000	2 to 6	5	10	1 3/8	2 1/2	1 3/8	6 oz.	Avgec	1.50
S-24X	1 or 2 - 42, 41, 6K6, 6V6	3500, 5000, 7000, 10000 CT.	1.04 to 6	5	40	1 5/8	2 3/4	1 3/8	9 oz.	Feber	1.55
S-23X	Universal - 1 or 2 tubes	4000, 5000, 7000, 10000, 14000 CT.	.13 to 16	10	50	2	3 1/4	1 5/8	1	Flake	1.80
S-26X	2 - 6F6, 6V6, 6K6, 42, 2A5	10000 CT.	2 1/2-4-6-10	15	50‡	2 3/4	3 1/4	1 3/4	1 1/2	Zeimo	2.60
S-25X	2 - 45, 71, 50, 42, 6L6	8000	2 1/2-4-6-10	15	50‡	2 3/4	3 1/4	1 3/4	1 1/2	Zehcz	2.60

HIGH LEVEL OUTPUT TRANSFORMERS

Tube to Line or Voice Coil

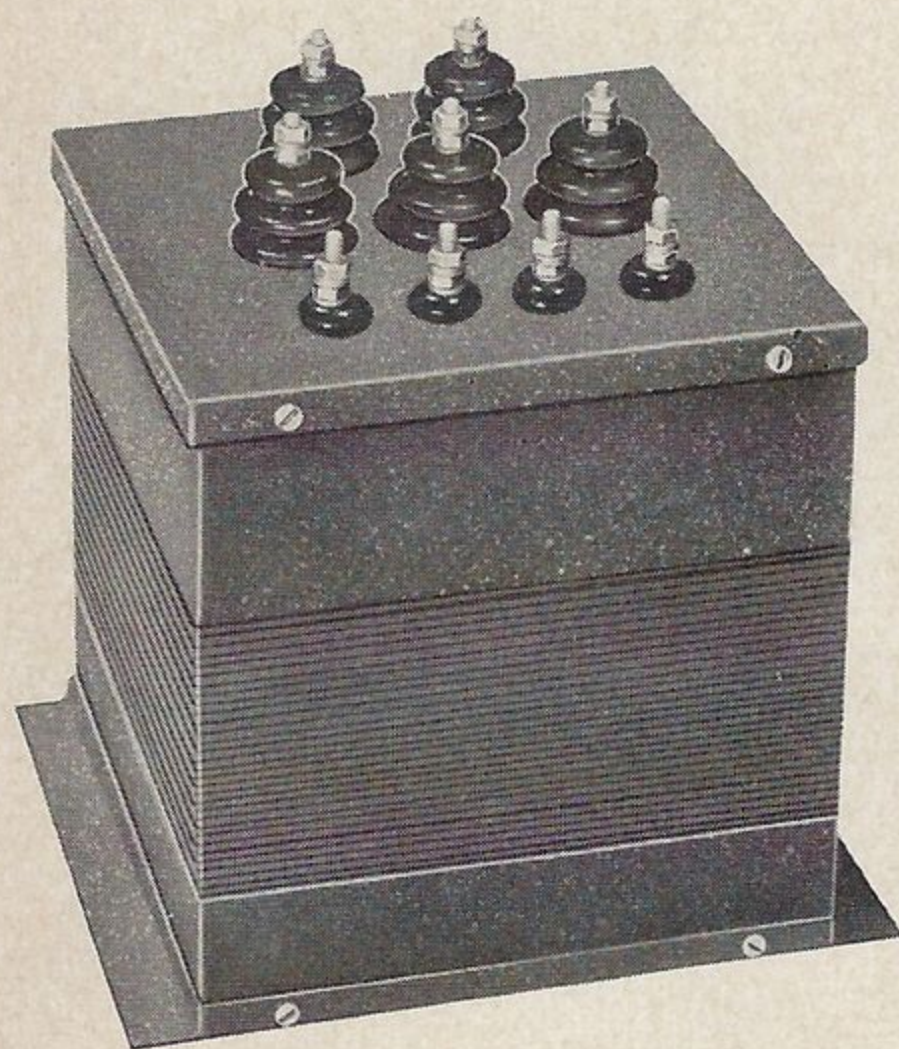
Type No.	Tubes Used	Impedance - Ohms		Audio Watts	Max. Pri. DC.	Dimensions - In.			Wt. lbs.	Code Word	List Price
		Primary	Secondary			H.	W.	D.			
S-76Q	1 - 6F6, 6V6, 6K6, 41, 42, 2A5, etc.	7000	2 1/2-4-8 15-200-500	5	40*	3 1/2	2 1/4	2 1/2	1 1/2	Avmes	\$6.60
S-29A	1 - 6F6, 6V6, 6K6, 41, 42, 2A5, etc.	7000	2 1/2-4-8 15-500	10	40*	2 3/4	2 5/16	2 7/16	2	Avfdy	3.00
S-28A	1 - 6L6 Class A	4500	2 1/2-4-8 15-500	15	80*	3 1/8	2 3/4	3	2 1/2	Avdax	4.30
S-78A	2 - 6F6, 6V6, 6K6, 42, 41, 2A5	10000 CT.	2 1/2-4-8 15-500	10	40‡	2 3/4	2 5/16	2 1/4	1 3/4	Avcyw	3.30
S-30A	2 - 6L6 AB ¹	6600 CT.	2 1/2-4-8 15-500	35	80‡	3 1/2	3 1/4	3 1/4	3 1/2	Avfez	4.80
S-38Q	2 - 6F6, 6V6, 6K6, 42, 41, 2A5 or 2-45, 50, 71	10000 CT. or 8000 CT.	2 1/2-4-8 15-200-500	15	40‡	4 1/2	3	3 1/4	3 1/2	Auzll	9.20
S-40Q	2 - 6L6 AB ¹	6600 CT.	2 1/2-4-8 15-200-500	35	80‡	4 7/8	3 3/8	3 5/8	6	Auznn	14.40
S-39Q	2 - 6A3, 2A3, 6B4, 6L6, etc.	5000 CT. or 3000 CT.	2 1/2-4-8 15-200-500	15	70‡	4 1/2	3	3 1/4	3 1/2	Auzmm	9.20
S-73Q	4 - 2A3, 6A3, 6B4, 6A5	2500 CT. or 1500 CT.	2 1/2-4-8 15-200-500	35	100‡	4 7/8	3 3/8	3 5/8	6	Auzoo	14.40
S-74Q	2 - 6L6 AB ² or 4 - 6L6 AB ¹	3800 CT. or 3300 CT.	2 1/2-4-8 15-200-500	60	160‡	6	5	5 1/8	15	Auztt	21.00

* Unbalanced DC. ‡ DC. Saturation eliminated by p.p. connection.

Line to Voice Coil

S-37Z	For matching 500 ohm output of amplifier	2000, 1500, 1000, 830, 500, 250	2 1/2-4-6 10	12		2 3/4	2 5/16	2 7/16	1 3/8	Zeity	3.30
S-36Q	to series and parallel combinations of speakers.	2000, 1500, 1000, 830, 500, 250	2 1/2-4-6 10	30		3 1/2	3 1/4	3 3/4	4	Found	9.20

DRIVER AND MODULATOR COMBINATIONS



Case "T"

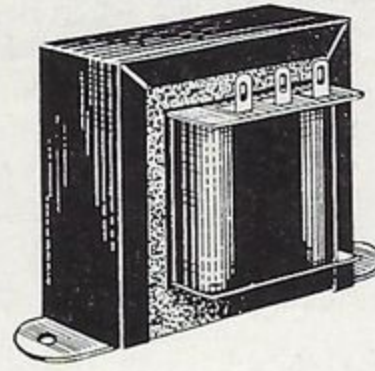
Proper layout of high power amplifiers for modulator use involves several problems not usually considered in amplifiers designed for other purposes. The fixed load offered by the class "C" stage makes possible the use of hi-voltage, high efficiency, class B or AB amplifiers; thus permitting relatively small output tubes and power supplies. Use of these amplifiers demands, however, that the driver stage be of high output and good regulation. Use of the recommended tubes, or of similar types with the same characteristics, will assure optimum results with Peerless transformers.

Peerless driver and modulation transformers are particularly successful in class B circuits because of their liberal design, close coupling, low leakage reactance, and high open circuit reactance. These factors, when combined with the correct turn ratio, assure an amplifier of high output, low distortion and negligible parasitic oscillation.

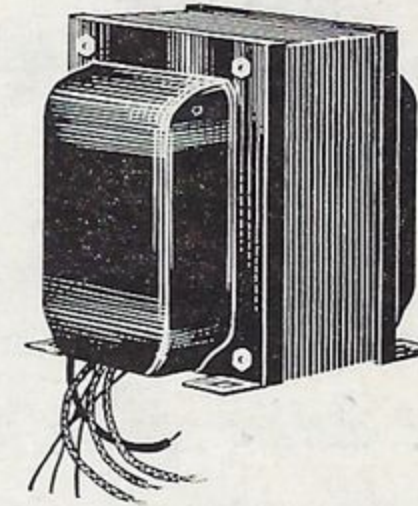
Audio Watts	Plate Volts	Mod. Tubes	Mod. Trans.	Driver Tubes	Driver Trans.	Audio Watts	Plate Volts	Mod. Tubes	Mod. Trans.	Driver Tubes	Driver Trans.
0.5	90	1-1G6G	M-2134X	1-1G4G	A-4095X	175	1000	2-830B	M-2107T	2-2A3	A-4237Q
2.1	135	1-1J6G	M-2134X	1-1H4G	A-4094X	175	1250	2-811	M-2107T	2-2A3	A-4237Q
2.1	135	1-19	M-2104X	1-30	A-4092X	190	1250	2-K54	M-2107T	2-2A3	A-4237Q
3.5	180	2-49	M-2104X	1-31	A-4092X	190	1250	2-HK54	M-2107T	2-2A3	A-4237Q
4.2	180	1-6Z7G	M-2104X	1-6J5	A-4092X	175	1000	2-TZ40	M-2107T	2-2A3	A-4237Q
9.0	250	2-HY60	M-2103X	1-6J5	A-4093X	225	1500	2-811	M-2107T	2-2A3	A-4237Q
10.0	300	1-6A6	M-2103X	1-6A6	A-4093X	225	1500	2-812	M-2107T	2-2A3	A-4237Q
10.0	300	1-6N7	M-2103X	1-6N7	A-4093X	250	1250	2-RK52	M-2107T	2-2A3	A-4237Q
10.0	300	1-RK34	M-2103X	1-RK34	A-4093X	250	1250	2-HF100	M-2107T	2-2A3	A-4237Q
14.0	350	2-6F6	M-2103X	1-6F6	A-4099X	260	1250	2-211	M-2107T	2-2A3	A-4237Q
13.0	300	2-6V6	M-2103X	1-6F6	A-4099X	260	1250	2-203A	M-2107T	2-2A3	A-4237Q
15.0	300	2-2A3	M-4081Q	1-6F6	A-4235Q	260	1250	2-838	M-2107T	2-2A3	A-4237Q
20	400	2-46	M-4081Q	1-46	A-4235Q	260	1250	2-ZB120	M-2107T	2-2A3	A-4237Q
30	300	4-2A3	M-4080Q	1-6F6	A-4235Q	260	1250	2-203Z	M-2107T	2-2A3	A-4237Q
30	400	2-6L6	M-4080Q	1-6F6	A-4235Q	300	1500	2-75T	M-2107T	2-2A3	A-4237Q
30	400	2-807	M-4080Q	1-6F6	A-4235Q	300	1250	2-805	M-2107T	2-2A3	A-4237Q
36	500	2-801	M-4080Q	2-2A3	A-4237Q	300	1250	2-RK57	M-2107T	2-2A3	A-4237Q
40	400	2-6L6	M-4080Q	2-2A3	A-4237Q	300	1500	2-100TH	M-2107T	2-2A3	A-4237Q
45	500	2-HK24	M-4080Q	2-2A3	A-4237Q	330	2000	2-RK38	M-2116T	2-2A3	A-4237Q
50	600	2-TZ20	M-2131Q	2-2A3	A-4237Q	330	2000	2-HK254	M-2116T	2-2A3	A-4237Q
60	400	4-6L6	M-2131Q	1-6F6	A-4235Q	370	1500	2-805	M-2116T	2-2A3	A-4237Q
60	500	2-807	M-2131Q	2-2A3	A-4237Q	370	1500	2-RK57	M-2116T	2-2A3	A-4237Q
60	500	2-809	M-2131Q	2-2A3	A-4237Q	370	1500	2-150T	M-2116T	2-2A3	A-4237Q
70	750	2-TZ20	M-2105Q	2-2A3	A-4237Q	400	2000	2-75T	M-2116T	2-2A3	A-4237Q
70	750	2-HK24	M-2105Q	2-2A3	A-4237Q	400	1500	2-HD203A	M-2116T	2-2A3	A-4237Q
80	600	2-807	M-2105Q	2-2A3	A-4237Q	500	1750	2-T155	M-2121T	4-2A3	A-4238Q
100	1000	2-WE304B	M-2106T	2-2A3	A-4237Q	500	1750	2-HD203A	M-2121T	4-2A3	A-4238Q
100	1000	2-800	M-2106T	2-2A3	A-4237Q	500	2000	2-HF200	M-2121T	4-2A3	A-4238Q
100	1000	2-TZ40	M-2106T	2-2A3	A-4237Q	510	1500	2-810	M-2121T	4-2A3	A-4238Q
100	750	2-809	M-2106T	2-2A3	A-4237Q	535	2000	2-806	M-2121T	4-2A3	A-4238Q
100	850	2-HK54	M-2106T	2-2A3	A-4237Q	590	2000	2-810	M-2121T	4-2A3	A-4238Q
105	1250	2-845	M-2106T	2-2A3	A-4237Q	600	2500	2-HK354	M-2121T	4-2A3	A-4238Q
115	1000	2-35T	M-2106T	2-2A3	A-4237Q	600	2500	2-RK38	M-2121T	4-2A3	A-4238Q
100	1000	2-RK18	M-2106T	2-2A3	A-4237Q	600	2500	2-250TH	M-2121T	4-2A3	A-4238Q
100	850	2-T756	M-2106T	2-2A3	A-4237Q	600	2500	2-806	M-2121T	4-2A3	A-4238Q
135	800	2-830B	M-2106T	2-2A3	A-4237Q	650	2500	2-204A	M-2121T	4-2A3	A-4238Q
160	1000	2-RK31	M-2106T	2-2A3	A-4237Q	650	2500	2-HK300	M-2121T	4-2A3	A-4238Q
175	1250	2-812	M-2107T	2-2A3	A-4237Q	700	3000	2-806	M-2133T	4-2A3	A-4238Q



Case 'Q'



Case 'X'



Case 'A'

DRIVER TRANSFORMERS**TUBE TO CLASS B OR AB GRIDS.**

Type No.	Driver Tubes	Output Tubes	Ratio Pri./1/2 sec.	Pri. D.C. Ma.	Dimensions - In.			Wt. lbs.	Code Word	List Price
					H.	W.	D.			
A-4235Q	1-6F6, 42, 2A5, 45	2-6L6, 2A3, 6F6, 45 6V6, 6A6, 6N7	2.2, 1.33:1	50	3 1/2	2 1/4	2 1/2	2	Auzgg	\$6.90
A-4082X	1-6F6, 42, 2A5, 45	2-6L6, 2A3, 6F6, 45 6V6	1.33:1	50	2 1/4	3 3/4	1 7/8	1 3/4	Groin	3.60
A-4099X	1-6F6, 42, 2A5, 45	2-6L6, 2A3, 6F6, 45 6V6	1.33:1	50	2	3 1/4	1 5/8	1	Zelsr	2.10
A-4236Q	2-6C5, 6J5, 76, 56 or 1-6F6, 42, 45, 6A6, 6N7	2-6L6, 2A3, 6F6, 45 6V6, 6A6, 6N7	4.4, 2.8:1 or 2.2, 1.4:1	15±	3 1/2	2 1/4	2 1/2	2	Auzhh	6.90
A-4079X	2-6C5, 6J5, 76, 56 or 1-6A6, 6N7	2-6L6, 2A3, 6F6, 45 6V6, 6A6, 6N7	2.8:1	15±	2 5/16	4	1 3/4	1 3/8	Gravy	3.75
A-4094X	1-1H4, 30	1-1J6G or 2-1H4G	2.66:1	15	1 1/8	1 5/16	1	2 1/4 oz.	Avmiw	1.90
A-4095X	1-1G4G	1-1G6G	1.2:1	15	1 1/8	1 5/16	1	2 1/4 oz.	Avmky	1.90
A-4093X	1-6J5, 6A6, 6N7, 76, 30	2-6A6, 6N7, 19, 30	2.3:1	25	2	3 1/4	1 5/8	1	Lodge	2.10
A-4092X	1-6J5, 6A6, 6N7, 76, 30	2-6A6, 6N7, 19, 30	2.66:1	25	1 5/8	2 3/4	1 3/8	9 oz.	Labat	2.10
A-4237Q	Univ. driver plates to B or AB grids.	Any grids—15 watts audio	3.1, 2.1:1	70±	4 1/2	3	3 1/4	4	Auzii	9.00
A-4238Q	Univ. driver plates to B or AB grids.	Any grids—30 watts audio	3.1, 2.1:1	160±	4 7/8	3 1/2	3 3/4	6	Auzjj	15.00
LINE TO B OR AB GRIDS										
A-4086Q	200 or 500 ohm line	Any B or AB grids— 15 watts audio	1:1.63, 2.5		4 1/2	3	3 1/4	4	Auzee	9.00
A-4234Q	200 or 500 ohm line	Any B or AB grids— 30 watts audio	1:1.63, 2.73		4 7/8	3 1/2	3 3/4	6	Auzff	18.00

± Per side - Pri. DC. normally balanced.

MODULATION TRANSFORMERS**TUBE TO RF LOAD**

Type No.	Tubes Used	Pri. Impedance	Audio Watts	Secondary		Dimensions - In.			Wt. lbs.	Code Word	List Price
				Imp.	DC-Ma.	H.	W.	D.			
M-2134X	1 - 1S6G, 1G6G or 2-1H4G, etc.	10000 CT.	2	5000-8000 10000	25	1 1/8	1 5/16	1	2 1/4 oz.	Avmma	\$1.80
M-2104X	1-19, 6N7, 6A6	10000 CT.	10	3500-5000- 8000	50	1 5/8	2 3/4	1 1/4	3/4	Largo	2.10
M-2103X	1-6N7, 6A6, 53 2-6F6, 42, 2A5	10000 CT.	10	3500-5000- 8000	100	2 1/4	3 3/4	1 7/8	1 3/4	Latch	3.90

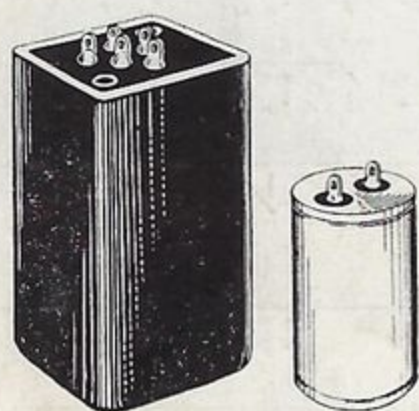
UNIVERSAL MODULATION TRANSFORMERS**ANY TUBES TO ANY LOAD**

Type No.	Audio Watts	Pri. Ma. Per Side	Secondary Ma.		Dimensions - In.			Wt. lbs.	Code Word	List Price
			Series	Par.	H.	W.	D.			
M-4081Q	20	80	80	160	4 1/2	2 7/8	3 1/8	4	Least	\$8.60
M-4080Q	40	100	100	200	5 1/2	4	4 3/8	6	Autkr	10.90
M-2131Q	60	130	130	260	6	5	5 1/8	10 1/2	Autls	15.50
M-2105Q	85	160	160	320	6	5	5 1/8	13	Zekab	18.40
M-2106T	150	200	200	400	6 3/4	7	6 1/4	25	Zeinp	24.20
M-2107T	300	250	250	500	7 3/4	7	6 1/4	29	Zekbc	31.60
M-2116T	450	400	400	800	8 3/4	8 1/2	6 1/4	40	Zeior	45.00
M-2121T	650	500	500	1000	9 1/2	9 3/4	6 1/4	55	Zekcd	78.00
M-2133T	1000	650	650	1300	12	11	9	120	Avdby	138.00

Other Peerless Products

In addition to the radio specialty transformers illustrated within these covers, Peerless products include a wide range of small transformers, windings, reactors, and fluorescent ballasts to cover almost every need in the electrical industry. Many of these items are wound to customer specification, or are designed by our engineering force in cooperation with the customer. Such engineering service is available to all customers to insure them a Peerless transformer which will operate efficiently in each application.

Some other Peerless products are:

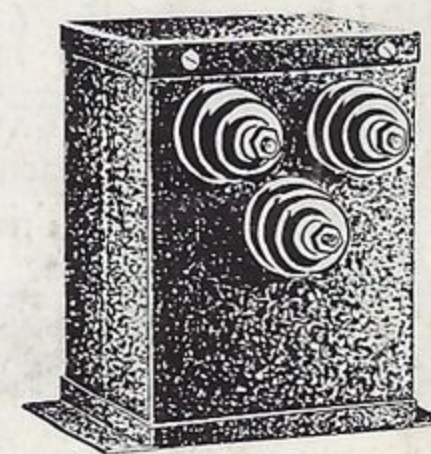


Transformers for Aircraft

Illustrated are two of the units designed especially to fit the requirements for small size, light weight, exceptional moisture protection, necessary for operation in every climate and at all altitudes.

Transformers for Diathermy

A development of standard Peerless transmitting transformers are the specialized units used in diathermy. Many other types of electrical medical equipment depend upon Peerless transformers for unfailing service.



Fluorescent Ballasts



Peerless was one of the first in the field with ballasts for fluorescent lighting. The Los Angeles area has peculiarly difficult problems in this field, and the solution of these problems has provided our product with a background of technical experience which adds greatly to the excellence of Peerless ballasts.

The Peerless Electrical Products Co.

6920 McKinley Avenue

Los Angeles, California