

SPECIAL SERIES AUDIO TRANSFORMERS

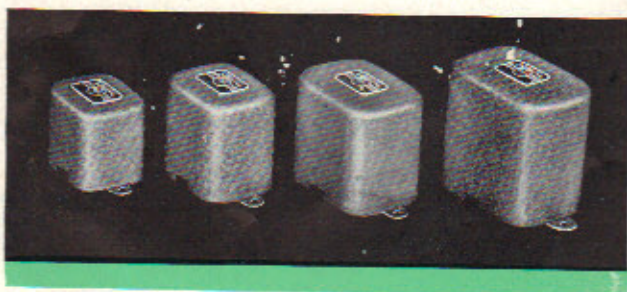
The UTC Special Series of transformers represents the culmination of three years of development. The values offered are unprecedented in the radio transformer field.

The Special Series units are unusually attractive in appearance, being finished in a rich commercial type gray crinkle enamel. The small units are housed in drawn cases having smooth modern lines and are poured with humidity proof sealing compound. Terminal lugs are provided on a recessed strip in the bottom of the case, permitting above-chassis or breadboard wiring by bringing leads through the slots provided in the side of the case. The terminals being on the bottom are suitable for standard chassis type wiring.

Large audio and power components are mounted in formed cans with reversible mounting facilities and louvers for good ventilation. Stand off insulators are provided for high voltage terminals.

New core and coil structures combined, with rigid clamping and special impregnation, assure quietness of operation and complete sealing against adverse humidity conditions.

Universal windings have been developed for driver, matching, and output transformers to assure maximum flexibility of application. The modulator output transformers are designed to match any audio tubes, within the power rating of the transformer, to any RF load.



CLASS A INPUT TRANSFORMERS

Type No.	Application	Ratio	Case	Net Price
S-1	1 plate* to 1 grid	3 1/2 : 1	G-2	\$1.35
S-2	1 plate* to 2 grids	2 : 1	G-2	1.50
S-3	1 plate* to 1 or 2 grids compact type	4 : 1 2 : 1	G-1	1.20
S-4	1 plate* to 2 grids wide range response	1 : 1	G-3	2.10
S-5	Single or double button mike or line to 1 grid hum-bucking type	16 : 1	G-2	1.80
S-6	Single or double button mike or line to 1 grid, compact type	16 : 1	G-1	1.20
S-7	Single plate* and carbon mike to one or two grids	3 : 1 16 : 1	G-2	2.10

* Will match tubes like 56, 6C5, 6C6 triode, 77 triode, 37, etc. Can be used with high mu triodes with loss in low frequencies.

UNIVERSAL DRIVER TRANSFORMERS (See Modulator chart for tube types)

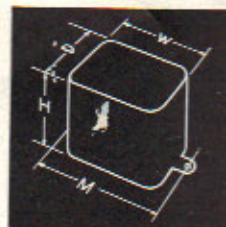
Type No.	Application	Case	Net Price
S-8	Single driver plate to pushpull grids	G-3	\$1.65
S-9	Pushpull driver plates to grids of class B tubes up to 400 watts output.	G-4	2.25
S-10	Pushpull 56, 6C6 triode, 6C5, or similar plates to 45's, 2A3's or 6L6's, self or fixed bias.	G-3	2.10

MATCHING TRANSFORMERS

Type No.	Application	Pri. Ohms	Sec. Ohms	Case	Net Price
S-11	Single 56, 6C6 triode, 6C5 or similar tube to line.	10,000	200/500	G-2	\$1.80
S-12	Line to speaker 15 watts.	500, 2000, 4000	2, 4, 8, 15	G-2	2.10
S-13	Line to speaker 30 watts.	500, 2000, 4000	2, 4, 8, 15	G-4	2.70

CASE SIZES

Type	H	W	D	M
G-1	1 7/8	2	1 3/4	2 7/16
G-2	2 7/16	2 3/8	1 15/16	2 7/8
G-3	2 1/2	2 3/4	2 1/8	3 1/4
G-4	2 15/16	3 1/8	2 5/16	3 3/8



UNIVERSAL OUTPUT TRANSFORMERS TO LINE AND VOICE COIL

Type No.	Tubes and Pri. Ohms	Sec. Ohms	Power	Case	Net Price
S-14	Single tubes: 2500 ohms for 2A3, 6A3, 6A5 G, 6B4 G, 6L6, 6Y6 25L6 4000 ohms for 2A5, 6F6 triode, 12A5, 25A6, 43, 45, 50, 71A 7000 ohms for 2A5, 6F6, 6K6, 20, 31, 33, 47 10000 ohms for 6G6, 38, 41	2, 8, 15, 500	10 W	G-2	\$1.95
S-15	P.P. tubes: 4000 ohms for 25L6, 6Y6G 5000 ohms for 2A3, 6A3, 6A5G, 6B4G, 45 10000 ohms for 19, 71G, 30, 43, 89, 627Q, 6AC5G, 53, 6A6, 6N6, 6N7, 6B5	2, 8, 15, 500	12 W	G-2	2.10
S-16	3000 ohms for 2A3, 6A3, 6A5G, 6B4G, AB 6000-6500 ohms for 2A5-6F6-42 triodes AB, 46, 59, 6L6 10000 ohms for 6B5, 6V6, 2A5-6F6-42 pentodes AB	2, 8, 15, 500	30 W	G-4	2.85
S-17	3300 ohms for 4 6L6's, 4 - 46's 3800 ohms for 2 6L6's, AB2 5000 ohms for 1608, 809	2, 8, 15, 500	55 W.	G-5	3.90

UNIVERSAL OUTPUT TRANSFORMERS Any modulator tubes to any RF load. (See chart)

Type No.	Audio Power	Case	Net Price
S-18	12 watts	G-3	\$2.10
S-19	30 watts	G-4	2.85
S-20	55 watts	G-5	3.90
S-21	110 watts	G-7	6.00
S-22	250 watts	G-9	8.40

TYPICAL MODULATOR COMBINATIONS (Cont.)

S-20 — 55 WATTS MAX.

P.P. Tubes	DRIVER		P.P. Tubes	MODULATOR STAGE					Bias Trsf.
	Transf.	Sec. Term.		Watts Output	P.P. Load	Plate Volts	Plate Trsf.	Bias Volts	
Single 45	S-8	G-G	46	40*	5000	470	S-44	0	
2A3	S-9	1-1	801	45	10000	600	S-45	75	S-51
2A3	S-9	3-3	1608	50	5000	425	S-44	15	S-51
2A3	S-9	1-1	T-20	50	8000	600	S-45	30	S-51
Single 45	S-8	G-G	4-46, 59	56	3000	425	S-44	0	
6CS	S-10	G-G	6L6 AB2	60	3800	400	S-39	25	S-51
6CS	S-10	G-G	4-6L6	60	3300	400	S-40	23	
2A3	S-9	3-3	809	60	5000	500	S-41	0	

* Above manufacturers' rating, but frequently employed by amateurs.

S-21 — 115 WATTS MAX.

P.P.-2A3 Driver S-9 Transf. Sec. Term.	P.P. Tubes	MODULATOR STAGE				Bias Volts	Bias Trsf.
		Watts Output	P.P. Load	Plate Volts	Plate Transf.		
2-2	TZ-20	70	12000	800	S-46	0	
1-1	T-20	70	12000	800	S-46	40	S-51
*	845	75	4600	1000	S-47	175	S-52
3-3	4-46, 59	80	2500	470	S-44	0	
1-1	807	80	6600	600	S-45	30	S-51
1-1	800, RK-30	90	6600	750	S-45	40	S-51
1-1	800, RK-30	100	12000	1000	S-47	55	S-51
3-3	809	100	8400	750	S-45	5	S-51
2-2	825	100	6600	850	S-46	30	S-51
2-2	TZ-40	100	6000	750	S-45	0	
2-2	T-756	100	7000	850	S-46	30	S-51
1-1	50-T	100	8000	1000	S-47	90	S-51
2-2	RK-18	100	12000	1000	S-47	50	S-51
1-1	HK-354	100	15000	1000	S-47	60	S-51
*	845	105	8800	1250	S-47	225	S-52
3-3	RK-31	110	14000	1000	S-47	0	
1-1	4-6L6	110	2000	400	S-44	25	S-51
2-2	35-T	115	11000	1000	S-47	30	S-51

* Reverse S-9 transformer using terminals 1-1 for plates and P-P for grids.

S-22 — 250 WATTS MAX.

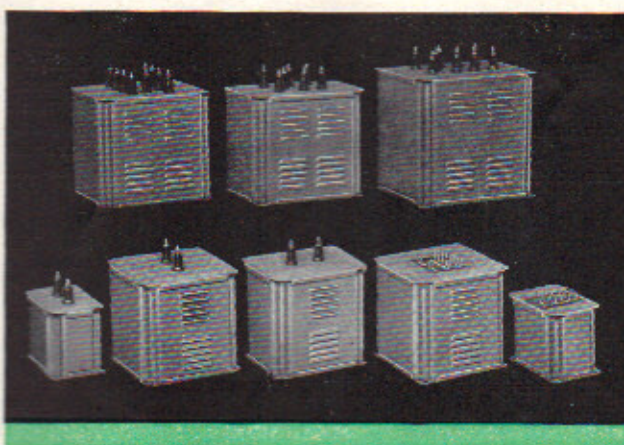
P.P.-2A3 Driver S-9 Transf. Sec. Term.	P.P. Tubes	MODULATOR STAGE				Bias Volts	Bias Trsf.
		Watts Output	P.P. Load	Plate Volts	Plate Transf.		
3-3	RK-31	140	17000	1250	S-47	0	
*	50 T	135	12000	1250	S-47	112	S-52
*	50 T	250	20000	2000	S-50	180	S-52
*	50 T	160	17000	1500	S-49	140	S-52
2-2	TZ-40	175	6800	1000	S-47	0	
1-1	T-55	175	6900	1000	S-47	40	S-51
1-1	T-55	225	9400	1250	S-47	50	S-51
2-2	HF-100	200	7000	1000	S-47	35	S-51
2-2	HF-100	250	12000	1500	S-49	52	S-51
2-2	100 TH	200	5200	1000	S-47	0	
2-2	100 TH	250	7200	1250	S-47	0	
†	100 TL	170	5200	1000	S-47	90	S-51
†	100 TL	230	7200	1250	S-47	112	S-52
2-2	ZB-120	150	4800	750	S-45	0	
2-2	ZB-120	200	6900	1000	S-47	0	
2-2	ZB-120	245	9000	1250	S-47	0	
*	HK-154	200	7500	1000	S-47	155	S-52
*	HK-154	225	11400	1250	S-47	210	S-52
1-1	203 A	200	6900	1000	S-47	35	S-51
1-1	203 A	250	9000	1250	S-47	45	S-51
3-3	203 Z	200	6900	1000	S-47	0	
2-2	203 Z	250	6700	1100	S-47	0	
1-1	211	200	6900	1000	S-47	77	S-51
1-1	211	250	9000	1250	S-47	100	S-51
1-1	HK-354	220	15000	1500	S-49	100	S-51
2-2	808	190	12700	1250	S-47	15	S-51
2-2	830 B	175	7600	1000	S-47	35	S-51
2-2	838	200	6900	1000	S-47	0	
2-2	838	250	9000	1250	S-47	0	

* Reverse S-9, using 2-2 for plates and P-P for grids.

† Reverse S-9, using 1-1 for plates and P-P for grids.

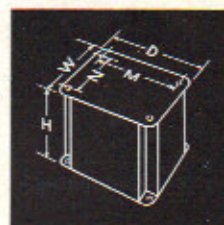
SPECIAL SERIES POWER EQUIPMENT

The UTC Special Series power supply components have been designed specifically for amateur and PA service. The units are attractive and commercial in appearance. The ratings indicated are based on typical amateur and PA application. Rugged design and good regulation are inherent in all units. Tapped coil structures on power and bias supply transformers afford maximum flexibility, permitting a given transformer to be used with more than one circuit and with many types of tubes. All high voltage units employ large stand off insulators and conservative coil insulation.



CASE SIZES

Type	H	W	D	M	N
G-5	3 3/8	3 1/8	4 1/16	3 3/8	2 7/16
G-6	4 1/8	3 3/4	5 1/2	4 13/16	3 3/32
G-7	5 1/8	4 1/16	5 9/16	4 27/32	3 25/32
G-8	5 3/8	5 1/2	5 1/2	4 27/32	4 3/4
G-9	6 1/8	5 1/16	6 13/16	6 3/32	4 19/32
G-10	6 1/8	6 1/16	6 11/16	5 19/16	5 13/32
G-11	7 1/8	6 1/16	7 3/8	6 21/32	5 29/32



FILTER, SWINGING, AND AUDIO CHOKES

Type No.	Service	Inductance	Current	Resistance	Case	Net Price
S-23	Audio	500 Hy.	5 Ma.	6000 ohms	G-2	\$1.35
S-24	P.P. Choke	500 Hy. C.T.	3 Ma.	4000 ohms	G-2	1.50
S-25	Filter	30 Hy.	30 Ma.	900 ohms	G-2	1.20
S-26	Filter	15 Hy.	60 Ma.	230 ohms	G-2	1.20
S-27	Filter	30 Hy.	75 Ma.	350 ohms	G-4	1.65
S-28	Filter	20 Hy.	100 Ma.	350 ohms	G-4	1.65
S-29	Filter	10 Hy.	175 Ma.	95 ohms	G-4	1.65
S-30	Swinging	5/25 Hy.	175 Ma.	95 ohms	G-4	1.65
S-31	Filter	20 Hy.	225 Ma.	120 ohms	G-5	2.10
S-32	Swinging	5/25 Hy.	225 Ma.	120 ohms	G-5	2.10
S-33	Filter	20 Hy.	300 Ma.	90 ohms	G-7	3.00
S-34	Swinging	5/25 Hy.	300 Ma.	90 ohms	G-7	3.00
S-35	Filter	20 Hy.	400 Ma.	85 ohms	G-8	3.90
S-36	Swinging	5/25 Hy.	400 Ma.	85 ohms	G-8	3.90
S-37	Filter	20 Hy.	550 Ma.	60 ohms	G-9	5.40
S-38	Swinging	5/25 Hy.	550 Ma.	60 ohms	G-9	5.40

COMBINED PLATE AND FILAMENT TRANSFORMERS

Primary 115 V. — 50/60 Cycles

Type No.	High Voltage	D.C. Volt's*	Rect'r Fil.	Fil. #1	Fil. #2	C'se	Net Price
S-39	490-400-0-400-490 175 Ma.	400/310	5V.-3A.	2.5V.C.T. -6A.	6.3V.C.T. 4 A.	G-6	\$3.30
S-40	525-425-0-425-525 250 Ma.	400/310	5V.-3A.	6.3V.C.T. -3A.	6.3V.C.T. 3 A.	G-7	3.60
S-41	600-0-600 200 Ma.	475	5V.-3A.	7.5V. tapped 6.3V.-3A.	6.3V.C.T. 2 A.	G-7	3.60
S-42	600-525-0-525-600 300 Ma.	480/400	5V.-3A.	7.5V. tapped 6.3V.-3A.	6.3V.C.T. 3A.	G-8	5.10
S-43	525-0-525 450 Ma. 40-0-40, 200 Ma.	400	5V.-3A. 5V.-6A.	6.3V.C.T. -2A.	6.3V.C.T. 5 A.	G-9	7.20

* Based on two section filter, choke input.

PLATE TRANSFORMERS

Primary 115 V. — 50/60 Cycles

No.	High Voltage	DC Voltages*	DC Current	Case	Net Price
S-44	575-525-0-525-575	470/430	500 Ma.	G-9	\$5.70
S-45	900-750-0-750-900	750/620	200 Ma.	G-8	3.90
S-46	1000-750-0-750-1000	825/600	300 Ma.	G-9	5.70
S-47	1500-1250-1000-0-1000-1250-1500	1275/1050/825	300 Ma.	G-10	7.20
S-48	1500-1250-1000-0-1000-1250-1500	1300/1075/850	500 Ma.	G-11	11.70
S-49	2100-1800-1500-0-1500-1800-2100	1815/1540/1275	300 Ma.	G-11	10.80
S-50	3000-2500-0-2500-3000	2625/2175	300 Ma.	G-11	12.90

* Based on two section filter for 200 Ma. and 300 Ma. units, single section filter for 500 Ma. units, both choke input.

Note: Using a bridge rectifier circuit D.C. Voltages shown are doubled but available D.C. current reduced to half. S-49 and S-50 are not suitable for bridge rectifiers.

Using the Special Series bias transformers any desired value of DC within the transformer rating can be obtained within approximately 6%. In most cases this eliminates the necessity for a voltage divider and improves the bias supply regulation accordingly.

The DC voltages shown are based at 200 Ma.—single section filter—choke input—120 ohm choke. Lower values of DC will increase the output voltage somewhat.

Secondary Terminals	Primary Terminals 115 V. 50/60 cycles	S-51		S-52	
		A.C. Volts each side	D.C. Volts	A.C. Volts each side	D.C. Volts
8-10-11-13	1-2	155	100	490	400
	1-3	141	87	445	360
	1-4	129	76	406	326
	1-5	119	67	376	298
	1-6	111	60	350	275
	1-7	106	55	326	254
	1-8	94	45	300	230
9-10-11-12	1-3	86	37	273	206
	1-4	78	30	249	184
	1-5	72	25	230	167
	1-6	67	20	214	152
	1-7	63	17	200	140
	1-2	61	15	190	132
	1-3	55	10	173	117
8-9-12-13	1-4	51	6	159	103
	1-5	47	3	147	92
	1-6	44	—	137	83
	1-7	41	—	127	74

UNIVERSAL BIAS TRANSFORMERS

Primary 115 V. — 50/60 Cycles

No Filament Windings

Type No.	Application	DC Current	Case	Net Price
S-51	Will supply any bias voltage from 15 to 100 volts DC within approximately 6% of desired value. (See chart.)	200 Ma.	G-5	\$3.00
S-52	Will supply any bias voltage from 75 to 400 volts DC within approximately 6% of desired value. (See chart.)	200 Ma.	G-7	4.20

SINGLE SECONDARY FILAMENT TRANSFORMERS

Primary Tapped 105, 115 Volts — 50/60 Cycles

Type No.	Secondary Volts	Secondary Current	Insulation	Case	Net Price
S-53	2.5 VCT	10 A.	1500 V.	G-3	\$1.35
S-54	5 VCT	4 A.	2500 V.	G-3	1.35
S-55	6.3 VCT	3 A.	1500 V.	G-3	1.35
S-56	7.5 VCT	3 A.	1500 V.	G-3	1.35
S-57	2.5 VCT	10 A.	10,000 V.	G-5	1.80
S-58	2.5 VCT	20 A.	10,000 V.	G-5	2.40
S-59	5 to 5.25 VCT	13 A.	5000 V.	G-5	2.10
S-60	5 to 5.25 VCT	22 A.	10,000 V.	G-7	4.50
S-61	7.5 VCT tapped 6.3 VCT	8 A.	3000 V.	G-5	2.10
S-62	10 VCT	10 A.	3000 V.	G-5	2.40
S-63	14 VCT tapped and 11 VCT	10 A.	5000 V.	G-7	4.50

MULTIPLE SECONDARY FILAMENT WINDINGS

Primary Tapped 105, 115 Volts — 50/60 Cycles

Type No.	Fil. 1	Fil. 2	Fil. 3	Insulation	Case	Net Price
S-64	2.5 VCT-5A	2.5 VCT-5A	5 VCT-6A	3000 V.	G-5	\$2.40
S-65	2.5 VCT-5A	5 VCT-4A	6.3 VCT-3A	3000 V.	G-5	2.40
S-66	2.5 VCT-10A	7.5 VCT-6.5A		3000 V.	G-5	2.40
S-67	5 VCT-6A	6.3 VCT-5A		3000 V.	G-5	2.40
S-68	5 VCT-3A	6.3 VCT-4A	7.5 VCT-5A	3000 V.	G-5	2.70
S-69	6.3 VCT-3A	7.5 VCT-6.5A		3000 V.	G-5	2.70
S-70	6.3 VCT-5A	6.3 VCT-5A		3000 V.	G-5	2.70
S-71	2.5 VCT-6A	2.5 VCT-6A	2.5 VCT-12A	10000 V.	G-7	4.50
S-72	5 VCT-3A	5 VCT-3A	5 VCT-6A	5000 V.	G-5	3.00

FILAMENT TRANSFORMER CHART

Filament Consumpt'n	Transf. for 1 tube	Transf. for 2 tubes*	Tube Types
2.5 V. 1.5-2 A.	S-53	S-53	2A5, 24A, 27, 35, 51, 45, 46, 47, 53, 59, 306A, 679, 685, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 914, 1610, RK-23
2.5 V. 2.5-3.25 A.	S-53	S-53	2A3, 82, RK-41, 843, 844, 1608, RK-39
2.5 V. 4/5 A.	S-57	S-57	836, 866, 866A, 871, 878, RK-21
2.5 V. 8/10 A.	S-57	S-58	RX-21, KY-21, RK-22
5 V. 1.5-2 A.	S-54	S-54	80, 83V, 5T4, 5W4, 5V4G, 5Y3G, 5Y4G, 5Z4
5 V. 3 A.	S-54	S-59	83, 5U4G, 5X4G, 5Z3
5/5.5 V. 5/6.75 A.	S-59	S-59	35T, 100T, 100TH, 100TL, HK-154, 267B, 353A, 872A, HK-54
5 V. 8/10.5 A.	S-59	S-60	RK-36, RK-38, 150T, HK-155, 250T, 250TH, 250TL, HK-354, 361A, 806, 872
6.3 V. 6-1 A.	S-55	S-55	6A3, 6A6, 6E6, 6F6, 6L6, 6N7, 42, 79, RK-25, RK-25B, RK-34, RK-39, RK-100, 802, 807, 913, RK-49
6.3 V. 2.5/3 A.	S-55	S-61	HK-55, RK-11, RK-12, 809
7.5 V. 1.25 A.	S-56	S-56	10, 81, 801, 841, 842, 941, 1602
7.5 V. 2 A.	S-56	S-61	T-20, TZ-20, 756, 865
7.5 V. 2.5-3.25 A.	S-56	S-61	RK-18, RK-19, RK-20, RK-20A, RK-30, RK-31, RK-32, RK-35, RK-37, T-55, 800, 804, 825, 834
7.5 V. 3.75/4 A.	S-61	S-61	808, RK-51, RK-52
10 V. 3.25-3.4 A.	S-62	S-62	RK-47, C-200, HF-200, C-201, C-202, 203A, C-203A, 203H, 211, 211B, 211C, 211D, 211H, 217A, 217C, 242B, 242C, 261A, 276A, 303A, 311, 311C, 376A, 803, 805, 835, 838, 845, 850, 852, 860, 952
10 V. 4-5 A.	S-62	S-62	HV-12, HV-27, RK-28, T-125, T-155, T-200, AD-203A, 203B, HD-203C, 203Z, HD-211C, 814, 822, RK-48
11-11.5 V. 3.85-5 A.	S-63	S-63	204A, 304A, 504A, C-300, HF-300, 849, 949
11 V. 10 A.	S-63		831, 861
14 V. 6 A.	S-63		241B

* Note: For more than two tubes add total filament currents and check current rating of corresponding filament transformers.

CONNECTIONS OF UNIVERSAL MODULATION TRANSFORMERS

(S-18, S-19, S-20, S-21, S-22)

PRIMARY		SECONDARY												
P to P Imp.	P-B-B-P	Join 3 & 4 Con. to 1 & 6	Join 3 & 4 Con. to 2 & 6	Join 2 & 3 Con. to 1 & 6	Join 3 & 4 Con. to 2 & 5	Join 1 & 3 & 4 & 6 Con. to 1 & 4	Join 7 & 11 8 & 12 Con. to 7 & 8	Join 1 & 5 2 & 6 Con. to 1 & 2	Join 9 & 10 Con. to 7 & 12	Join 9 & 10 Con. to 8 & 12	Join 9 & 10 Con. to 8 & 11	Join 8 & 9 Con. to 7 & 12	Join 7 & 9 10 & 12 Con. to 7 & 10	Join 8 & 9 10 & 11 Con. to 8 & 10
Line to RF	500 ohms connected to 7 and 8; join 7 to 11 and 8 to 12	15000	9400	7800	5000	3800								
Line to RF	500 ohms connected to 1 and 2; join 1 to 5 and 2 to 6								16000	11000	8000	7000	4000	2000
2000	2-3-4-5						200		8500	6400	4300	3600	2150	1100
2000	1-2-5-6						350		16000	11500	8000	6500	4000	2000
3000	2-3-4-5						300		13000	9500	6500	5500	3200	16000
3000	1-2-5-6						500		23500	17000	12000	10000	6000	3000
3800	2-3-4-5						400		16400	12000	8200	7000	4000	2000
3800	1-2-5-6						650		30000	21500	15000	12500	7500	3750
4000	2-3-4-5						400		17500	12500	8600	7300	4300	2150
4000	8-9-10-11	5500	3500	3000	1850	1400		250						
5000	2-3-4-5						500		21500	16000	11000	9200	5400	2700
5000	8-9-10-11	7000	4300	3500	2300	1750		300						
6000	1-3-4-6						200		8500	6400	4300	3600	2100	1050
6000	8-9-10-11	8900	5200	4250	2750	2200		370						
6600	1-3-4-6						200		9500	7000	4750	4000	2400	1200
6600	8-9-10-11	9000	5600	4650	3000	2400		400						
7000	1-3-4-6						225		10000	7300	5000	4300	2500	1250
7000	8-9-10-11	9700	6000	5000	3200	2500		425						
8000	1-3-4-6						275		12000	8500	6000	5000	3000	1500
8000	8-9-10-11	11000	7000	5650	3700	2800		500						
9000	1-3-4-6						300		13000	9500	6500	5500	3200	1600
9000	8-9-10-11	12500	7750	6300	4200	3000		550						
9000	7-9-10-12	6000	4000	3200	2000	1500		275						
10000	1-3-4-6						325		14500	10500	7000	6000	3500	1750
10000	8-9-10-11	14000	8500	7000	4500	3500		600						
10000	7-9-10-12	7000	4300	3500	2300	1750		300						
12000	1-3-4-6						400		17500	12500	9000	7250	4300	2150
12000	7-9-10-12	8400	5200	4250	2750	2100		375						
14000	7-9-10-12	10000	6000	5000	3200	2450		425						
16000	7-9-10-12	11000	7000	5600	3700	2800		500						
18000	7-9-10-12	12500	7750	6300	4200	3150		550						
14000	13-3-4-14													
16000	13-3-4-14								12000	8000	5500	4700	3000	1500
18000	13-3-4-14								13000	9000	6500	5500	3200	1600
20000	13-3-4-14								15000	10500	7000	6000	3500	1750
22000	13-3-4-14								16500	11500	8000	7000	4000	2000
									18000	13000	9000	7500	4500	2250
		Join 3 & 4 Con. to 13 & 14	Join 3 & 4 Con. to 1 & 14	Join 4 & 6 Con. to 13 & 14	Join 3 & 4 Con. to 13 & 5	Join 2 & 3 Con. to 13 & 14	Join 3 & 13 4 & 14 Con. to 4 & 13							
14000	7-9-10-12	17600	13500	7000	9000	10800	4400							
16000	7-9-10-12	20000	15500	8000	10300	12400	5050							
18000	7-9-10-12	22400	17400	9000	11500	13900	5850							

S-22 ONLY

S-22 ONLY

S-22 ONLY

S-22 ONLY

S-18 — 12 WATTS MAX.

DRIVER TUBES: In the combinations shown below, typical suitable driver tubes are: 27, 30, 37, 49, 53, 56, 76, 79, 89, 6A6, 6C5, 6C6 triode, 6E6, 6N7.

DRIVER		MODULATOR STAGE			
Transf.	Sec. Term.	P.P. Tubes	Watts Output	P.P. Load	Bias Volts
S-2	G-G	6E6	1.6	14,000	250
S-8	G-G	19, 1J6G	2.1	10,000	135
S-8	G-G	30	2.5	10,000	180
S-8	G-G	49	3.5	12,000	180
S-8	G'-G'	89	3.5	10,000	180
S-2	G-G	25L6	4	4,000	110
S-8	G'-G'	627G	4.2	12,000	180
S-2	G-G	6Y6G	7	4,000	135
S-8	G-G	79, 6Y7G	8	14,000	250
S-8	G'-G'	6AC5G	8	10,000	250
S-8	G'-G'	59, 6A6, 6N6, 6N7	10	10,000	300
S-2	G-G	2A3, 6A3, 6A5G, 6B4G	10	5,000	325
S-2	G-G	6B5	10	10,000	300
S-8	G-G	45	10	5,000	275
SINGLE TUBES					Pri. Load
S-1	F-G	43, 45, 59, 71A, 12A5, 25A6, 25A7			4000 ohms
		31, 46, 59, 6V6, 33			6000 ohms
		33, 42, 46, 47, 49, 89, 2A5, 6F6, 6B5			7000 ohms
		59, 89 pentode			8000 ohms
		10, 41, 42, 5G6, 6K5			10,000 ohms
		38, 12A7			14,000 ohms

TYPICAL MODULATOR COMBINATIONS

S-19 — 30 WATTS MAX.

(53, 56, 6C6 triode, 6N7, may be substituted for 6C5 tubes)

DRIVER		MODULATOR STAGE			
Tube or Tubes	Transf.	Sec. Term.	P.P. Tubes	Watts Output	P.P. Load
6C5	S-10	G-G	6V6	13	8,000
6C5	S-2	G-G	6B5	13.5	10,000
6C5	S-10	G-G	2A3, 6A3, 45, 6A5G, 6B4G	15	3,000
6C5	S-10	G-G	2A5, 42, 6F6, Pentode AB	10	10,000
2A5	S-8	G-G	2A5, 42, 6F6, triode AB	18	6,000
89	S-8	G'-G'	Parallel 53's, 6A6, 6N6, 6N7	19	5,000
45	S-8	G-G	10, 16G2	25	8,000
45	S-8	G'-G'	46, 59	25	6,000
45	S-8	G'-G'	841	28	7,000
6C5	S-10	G-G	6L6 self bias	30	6,600