

# COLLINS SIGNAL

## This Chart Will Help You Select the Proper Class B Transformers at a Glance

	Fig	Audio Power Watts	V1 Class A	V2 Class B	T2 Input	T3 Output	B1 Volts	B2 Volts	R1 Ohms	R2 Ohms	R3 Ohms	C1	C Bias
A	1	25	45's	46's	716	761 762 765	270	400	200,000	none	750	none	0
B	1	28	45's	59's	716	770 765	270	400	200,000	none	750	none	0
C	1	60-70	45's	10's	719	780	270	650-750	200,000	20,000	750	none	60-90v
D	1	100-240	2A3's	203A's	718	790 791 793 794	360	1000 1250	200,000	10,000	700	20mfd (100v)	30-45v
E	1	500	845's	204A's 849's	717	792	1250	2500	200,000	10,000	600	none	100-180v
F	2	1	30	30's	750X	751Z	180	180	757X trans	50,000	-13.5v bias	bat. bias	22.5v
G	2	1.6 to 2.1	31 or 19 (elements in parallel)	19 (elements in pp)	752X	740Z 741Z 742Z	135	135	0.5 to 1.0 meg	none	-22.5v bias	bat. bias	0
H	2	3.5	49	49's	752X	"	135	135-180	"	none	-20v bias	bat. bias	0
I	2	8	37 or 85 (triode sec)	79 (elements in pp)	753X	"	250	250	"	"	2500	"	0
J	2	10	56 or 53 (elements in parallel)	53 (elements in pp)	754X	"	300	250-300	"	"	2500	25mfd (25v)	0
K	2	20	46	46's	714Z	761 762 765	250	400	"	"	1500	20mfd (50v)	0
L	2	25	2A3	46's	720B	"	300	400	"	"	700	20mfd (100v)	0

T1-605, 610, 307, 309, 756X or 307Z

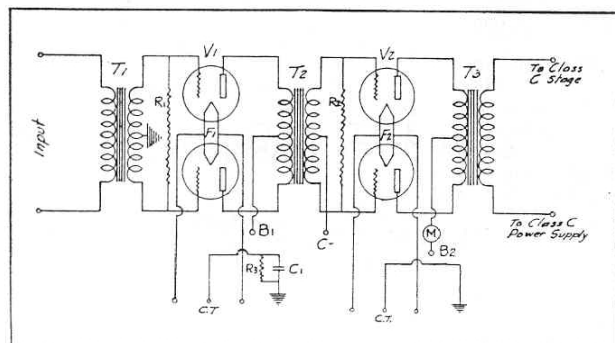


FIG. 1

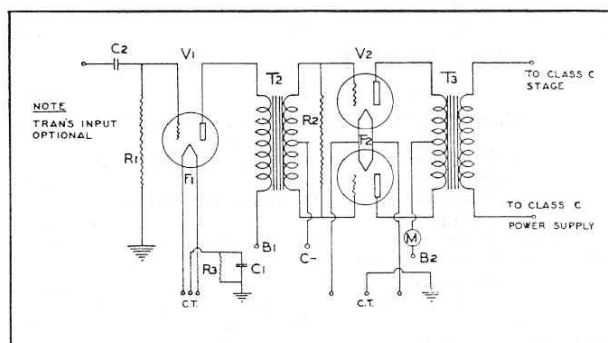


FIG. 2

### Class B Equipment for Broadcast Stations

Class B modulation is finding increased favor among the broadcast stations, especially those within the power range of 1,000 watts or less. When class B modulation was first given publicity, it was looked upon somewhat askance by broadcast engineers who were under the impression that quality might be sacrificed in the effort to obtain large audio power from small tubes. The work that the Collins Radio Company has done in connection with class B modulation has accomplished much to disprove this opinion and since the publication of an article giving specific design data on Class B modulation\*, we have had a very large number of inquiries from broadcasters all over

the country for quotations on suitable class B equipment. This has led to the development of a complete set of apparatus including a special speech amplifier (the 7B), a class B modulation unit and a suitable power supply. A number of broadcasting stations in the United States and Canada have installed this new equipment and they have found it possible in many cases to improve the quality of their transmission materially at the same time that they reduced their tube and power cost. It seems likely that this system of modulation will continue to find wider acceptance.

Recommendations and quotations will be gladly supplied to broadcast engineers on request.

\* "Getting Quality Performance with Class B Modulation." Collins. May, 1933, QST.