

A Comprehensive

INTERNATIONAL
EDITION

RADIO VALVE GUIDE

BOOK 4

BY

B. B. BABANI

CHARACTERISTICS AND BASE CONNECTIONS ARE GIVEN FOR

All receiving valves issued since 1956—including English, American and European : miniatures and sub-miniatures.

All the modern English and American television C.R. Tubes.

Voltage and current stabilisers, thyratrons rectifiers, etc.

* * *

Complete diagrams of all the valve bases are shown—not simply the pin connections.

The unique features of Book's 1 2 and 3 have been retained : more than 1,100 valves not previously shown are presented, including all ENGLISH, EUROPEAN & AMERICAN RECEIVING VALVES ISSUED SINCE 1956

No. 157 BERNARDS RADIO MANUALS

40p



A Comprehensive
RADIO VALVE
GUIDE

BOOK 4

by

B. B. BABANI

LONDON: BERNARDS (Publishers) LIMITED

FIRST PUBLISHED JANUARY 1960
REPRINTED OCTOBER 1963
REPRINTED MARCH 1967
REPRINTED APRIL 1968
REPRINTED FEBRUARY 1969
REPRINTED SEPTEMBER 1970
REPRINTED NOVEMBER 1971
REPRINTED JULY 1972

CONTENTS

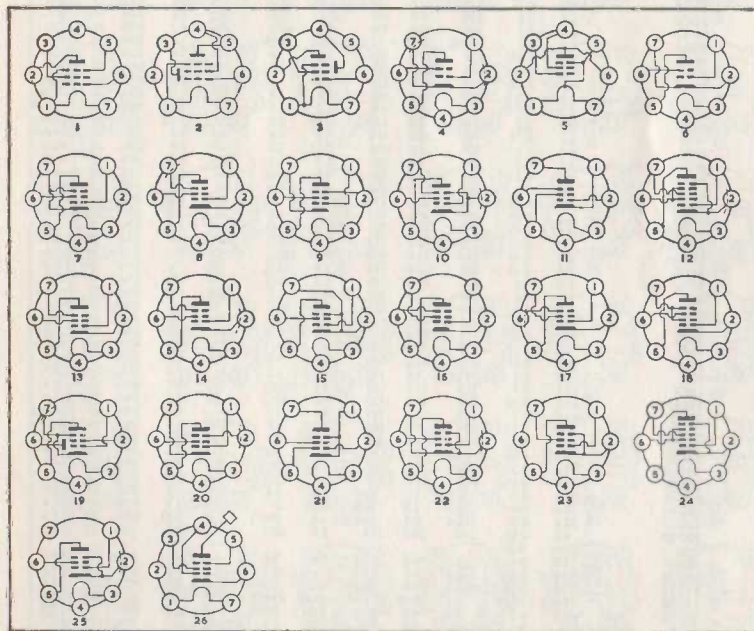
Screened Tetrodes and Pentodes	10
Frequency Changers	17
Triode Amplifiers	18
Sub Miniature Valves	26
Tuning Indicators	27
Rectifiers	28
Output Valves	30
Regulators and Thyratrons	35
Television C.R. Tubes	36
Diodes	39
Radio Receiving, Transmitting, and C.R.T. Designation Systems	40
Index	43
Index of U.S.S.R. Valves	47

SCREENED TETRODES and PENTODES

Type	FILAMENT or HEATER		ANODE		SCREEN		Neg. Grid Volts	r _a K Ω	g _m mA/V	BASE		Maker	
	Volts	Amps	Volts	I/mA	Volts	I/mA				Type	Ref.		
1AF33	1.4	0.025	67.5	1.6	67.5	0.4	0	600	0.5	B7G	2	U.S.A.	
1AF34	1.2	0.03	67.5	1.6	67.5	0.4	0	600	0.5	B7G	2	U.S.A.	
1AM4	1.4	0.025	90	2.4	67.5	0.9	0	500	0.36	B7G	1	Japanese	
1AR5	1.4	0.025	67.5	0.9	67.5	0.25	0	800	0.5	B7G	2	Japanese	
1AS5	1.4	0.025	67.5	0.9	67.5	0.25	0	800	0.5	B7G	3	Japanese	
1DN5	1.4	0.05	67.5	2.1	67.5	0.55	—	600	0.63	B7G	3	U.S.A.	
1F3	1.4	0.025	90	3	67.5	1.4	2	500	0.75	B7G	1	U.S.A.	
1F34	1.2	0.03	90	3.5	67.5	1.4	2	500	0.75	B7G	1	U.S.A.	
1K1II	1.2	0.06	60	1.7	45	0.6	0.5	1500	0.65	B7G	1	Soviet	
1S1II	1.2	0.06	60	1.0	45	0.25	0	1000	0.5	B7G	2	Soviet	
2C75	2.4	0.6	125	10.0	80	1.5	1	100	8.0	B7G	4	U.S.A.	
2EA5	2.3	0.6	250	10.0	140	0.95	1	150	8.0	B7G	6	U.S.A.	
2111II	2.4	1.06	67.5	2.8	67.5	0.65	3.5	260	0.9	B7G	5	Soviet	
3CF5	3.15	0.6	125	11.0	125	2.3	—	300	7.6	B7G	7	U.S.A.	
3CY5	2.9	0.45	125	10.0	80	1.5	1	100	8.0	B7G	4	U.S.A.	
3DK6	3.15	0.6	125	12.0	125	3.8	56 Ω	—	9.8	B7G	8	U.S.A.	
3EA5	3.0	0.45	250	10.0	140	0.95	1	150	8.0	B7G	6	U.S.A.	
4AU5	4.2	0.45	250	10.8	150	4.3	1	1000	5.4	B7G	9	U.S.A.	
4BA6	Vari-mu	4.2	0.45	250	11.0	100	4.2	68 Ω	1500	4.4	B7G	9	U.S.A.
4BC5	4.2	0.45	250	7.5	150	2.1	1.75	800	5.7	B7G	10	U.S.A.	
4BN6	4.2	0.45	80	0.23	60	4.5	1.3	Gated Beam	B7G	11	U.S.A.		
4BZ6	Vari-mu	4.2	0.45	200	11.0	150	2.6	180 Ω	600	6.1	B7G	8	U.S.A.
4C86	4.2	0.45	200	9.5	150	2.8	2	600	6.2	B7G	8	U.S.A.	
4CE5	4.2	0.45	200	2.45	150	0.4	6.5	600	0.2	B7G	10	U.S.A.	
4C56	Heptode	4.2	0.45	100	1.1	30	0.75	1	1200	0.95	B7G	12	U.S.A.
4CY5	4.2	0.3	125	10.0	80	1.5	1	100	8.0	B7G	4	U.S.A.	
4DE6	4.2	0.45	125	15.5	125	4.2	56 Ω	250	8.0	B7G	8	U.S.A.	
4DK6	4.2	0.45	125	12.0	125	3.8	56 Ω	—	9.8	B7G	8	U.S.A.	
4DT6	4.0	0.45	150	11.1	100	2.1	560 Ω	150	0.65	B7G	13	U.S.A.	
4EV6	4.2	0.45	125	11.0	125	6.2	56 Ω	200	14	B7G	13	U.S.A.	
6AU6A	6.3	0.3	250	10.8	150	4.3	1	1000	5.2	B7G	9	U.S.A.	
6CB6A	6.3	0.3	200	9.5	150	2.8	2	600	6.2	B7G	8	U.S.A.	
6CF5	6.3	0.3	125	11.0	125	2.3	—	300	7.6	B7G	7	U.S.A.	
6CY5	6.3	0.2	125	10.0	80	1.5	1	100	8.0	B7G	4	U.S.A.	
6DK6	6.3	0.3	125	12.0	125	3.8	56 Ω	—	9.8	B7G	8	U.S.A.	
6EA5	6.3	0.2	250	10.0	140	0.95	1	150	8.0	B7G	6	U.S.A.	
6E56	Vari-mu	6.3	0.3	12.6	3.0	6.3	1.1	0.7	150	1.9	B7G	14	U.S.A.
6E76	6.3	0.3	12.6	2.0	—	6.3	0.7	0.75	200	2	B7G	15	U.S.A.
6EW6	6.3	0.4	125	11.0	125	6.2	56 Ω	200	14	B7G	13	U.S.A.	
6F17	6.3	0.3	600	5.9	600	1.2	—	8.3	B7G	16	Ediswan		
6F21	6.3	0.2	250	8.0	200	2.1	2.5	—	2.1	B7G	17	Ediswan	
6F31	6.3	0.3	250	11.0	100	4.2	5	1500	4.4	B7G	9	U.S.A.	
6F32	6.3	0.175	180	8.0	120	2.4	200 Ω	530	4.6	B7G	15	U.S.A.	
6F33	6.3	0.175	120	5.2	120	3.5	2	—	3.2	B7G	13	U.S.A.	
6F35	6.3	0.175	28	2.7	28	1.0	270 Ω	100	2.75	B7G	15	U.S.A.	
6F36	6.3	0.45	300	10.0	150	2.2	110 Ω	1000	9.0	B7G	20	U.S.A.	
6H1	6.3	0.2	250	10.5	—	—	—	—	—	B7G	18	Ediswan	
6K1II	6.3	0.15	250	6.7	100	1.6	1.5	—	2	B7G	15	Soviet	
6K4II	6.3	0.3	250	6.7	100	2.7	3	450	1.85	B7G	15	Soviet	
6K4I	6.3	0.3	250	11.0	100	4.2	68 Ω	1500	4.4	B7G	20	Soviet	
6K4II	6.3	0.2	120	5.5	120	5.5	200 Ω	75	3.55	B7G	13	Soviet	
6K2II	6.3	0.175	120	7.5	120	3.5	200 Ω	300	5.2	B7G	15	Soviet	
6K3II	6.3	0.3	250	7.0	150	2.0	2	700	5.0	B7G	20	Soviet	
6K4II	6.3	0.3	250	11.0	100	4.2	68 Ω	1500	4.4	B7G	20	Soviet	
6K5A	6.3	0.45	250	10.0	100	2.5	160 Ω	500	9.0	B7G	20	Soviet	
6K5II	6.3	0.45	250	10.0	100	2.5	160 Ω	500	9.0	B7G	8	Soviet	
12BL6	12.6	0.15	12.6	1.35	12.6	0.5	0.65	500	1.35	B7G	9	U.S.A.	
12CM5	12.6	0.45	12.6	4.5	12.6	3.5	0	40	3.8	B7G	21	U.S.A.	
12CX6	12.6	0.15	12.6	3.0	12.6	1.4	2.2M Ω	40	3.1	B7G	9	U.S.A.	
12CY6	12.6	0.2	12.6	1.6	12.6	0.4	0	140	3.25	B7G	9	U.S.A.	
12DZ6	12.6	0.175	12.6	5.3	12.6	2.6	100K Ω	30	3.6	B7G	9	U.S.A.	
12EA6	12.6	0.175	12.6	3.2	12.6	1.4	10M Ω	32	3.8	B7G	9	U.S.A.	
12EG6	12.6	0.15	12.6	0.4	12.6	2.4	0.8	150	0.8	B7G	12	U.S.A.	
12EK6	12.6	0.2	12.6	4.4	12.6	2.0	2.2M Ω	40	4.2	B7G	9	U.S.A.	
12EZ6	12.6	0.15	12.6	1.9	12.6	0.7	400	400	0.7	B7G	9	U.S.A.	
12F31	12.6	0.15	250	11.0	100	4.2	5	1500	4.4	B7G	9	U.S.A.	
18FW6	18.0	0.1	100	9.0	100	3.9	68 Ω	250	4.1	B7G	9	U.S.A.	
401A	6.3	0.15	90	3.9	90	1.4	820 Ω	300	2.0	B7G	22	Ericsson	
40BA	20.0	0.05	120	7.5	120	—	2	300	5.0	B7G	10	Ericsson	
409A	6.3	0.175	120	5.2	120	3.5	2	—	3.2	B7G	13	Ericsson	
6516	6.3	0.2	250	16.0	250	2.25	18.5	150	2.55	B7G	23	U.S.A.	

SCREENED TETRODES and PENTODES—Contd.

Type	FILAMENT or HEATER		ANODE		SCREEN		Neg. Grid Volts	r _a K Ω	g _m mA/V	BASE		Maker	
	Volts	Amps	Volts	I/mA	Volts	I/mA				Type	Ref.		
6954	6.3	0.3	150	5.8	150	6.6	1	—	5.0	B7G	8	U.S.A.	
6968	6.3	0.175	120	7.5	120	2.5	2	—	5.0	B7G	7	U.S.A.	
7032	6.3	0.3	250	4.5	100	7.2	2	—	1.8	B7G	12	U.S.A.	
7036	6.3	0.3	150	5.5	71	9.0	0	—	Gated Beam	B7G	12	U.S.A.	
7056	13.5	0.15	250	9.5	150	2.8	100 Ω	600	6.2	B7G	8	U.S.A.	
7167	13.5	0.09	125	10.0	80	1.4	1	—	8.0	B7G	6	U.S.A.	
DAF961	1.2	0.06	67.5	2.2	67.5	0.3	0	600	0.7	B7G	2	E. Eurpn.	
DF961	1.2	0.06	67.5	3.4	67.5	1.5	0	250	0.85	B7G	1	E. Eurpn.	
EP0F	6.3	0.15	250	7.4	150	2.9	100 Ω	1300	4.6	B7G	8	European	
EP9F	6.3	0.175	120	7.5	120	2.5	2	340	5.0	B7G	10	European	
EP9F	6.3	0.15	250	9.2	100	3.3	80 Ω	1000	3.6	B7G	8	European	
EP9F	Vari-mu	6.3	0.3	12.6	2.0	6.3	1.1	0.7	150	1.9	B7G	14	European
EP98	6.3	0.3	12.6	2.0	6.3	0.7	0.75	200	2	B7G	15	European	
EP905	6.3	0.175	120	7.5	120	2.5	2	340	5.0	B7G	10	European	
EH9005	6.3	0.3	150	6.5	75	9.0	0	—	—	B7G	24	European	
M8196	6.3	0.175	120	5.5	120	3.5	2	—	3.5	B7G	8	Mullard	
R144	6.3	0.3	250	10.0	250	2.6	2	1000	7.5	B7G	17	French	
S6F12	6.3	0.3	250	10.0	250	2.5	2	900	7.5	B7G	17	Ediswan	
S6F17	6.3	0.3	600	5.9	600	1.2	—	—	8.3	B7G	16	Ediswan	
TS51	6.3	0.175	150	7.0	140	2.2	3	420	4.3	B7G	25	European	
W25	1.4	0.025	90	1.65	90	0.5	0	1400	0.85	B7G	1	G.E.C.	
ZD25	1.4	0.025	90	1.1	90	0.4	0	1600	0.4	B7G	2	G.E.C.	
T837	12.6	0.7	500	60.0	0	30	85	—	3.5	B7G	26	Soviet	



SCREENED TETRODES and PENTODES—Contd.

Type	FILAMENT or HEATER		ANODE		SCREEN		Neg. Grid		ra		gm		BASE		Maker	
	Volts	Amps	Volts	I/mA	Volts	I/mA	Volts	Grid Sync.	K Ω	in TV	K Ω	in TV	Type	Ref.		
4BUB	4.2	0.45	100	2.2	67.5	—	—	—	—	—	—	—	—	—	—	
5A/170K	6.3	0.3	180	13.0	150	3.0	630 Ω	—	16.5	B9A	2	U.S.A.				
5B9V8	4.7	0.6	250	10.0	110	3.5	68 Ω	—	250	5.2	B9A	3	U.S.A.			
5CL8A	4.7	0.6	125	12.0	125	4.0	1.0	100	6.4	B9A	16	U.S.A.				
5CQ8	4.7	0.6	125	12.0	125	4.2	1.0	140	5.8	B9A	4	U.S.A.				
5CR8	4.7	0.6	125	13.0	125	3.0	56 Ω	—	300	7.7	B9A	11	U.S.A.			
5D4B	5.2	0.6	125	13.5	125	3.8	56 Ω	—	150	8.6	B9A	5	U.S.A.			
5E4B	4.7	0.6	125	12.0	125	4.0	1.0	80	6.4	B9A	17	U.S.A.				
5EH8	4.7	0.6	125	12.0	125	4.0	1.0	170	6.0	B9A	18	U.S.A.				
6AM8A	6.3	0.45	200	9.5	150	3.0	120 Ω	—	300	5.8	B9A	6	U.S.A.			
6AN8A	6.3	0.45	200	9.5	150	2.8	180 Ω	—	300	6.2	B9A	7	U.S.A.			
6AT8A	6.3	0.4	150	6.2	150	1.8	3.5	—	2.1	B9A	8	U.S.A.				
6A8A	6.3	0.6	200	15.0	125	3.4	82 Ω	—	150	7.0	B9A	9	U.S.A.			
6BE8A	6.3	0.45	250	10.0	110	3.5	68 Ω	—	400	5.2	B9A	5	U.S.A.			
6BVV8	6.3	0.45	250	10.0	110	3.5	68 Ω	—	250	5.2	B9A	3	U.S.A.			
6CG8A	6.3	0.45	250	7.7	150	1.6	200 Ω	—	750	4.6	B9A	10	U.S.A.			
6CL8A	6.3	0.45	125	12.0	125	4.0	1.0	140	6.4	B9A	16	U.S.A.				
6CQ8	6.3	0.45	125	12.0	125	4.2	1.0	140	5.8	B9A	4	U.S.A.				
6CR8	6.3	0.45	125	13.0	125	3.0	56 Ω	—	300	7.7	B9A	11	U.S.A.			
6CS8	6.3	0.45	125	13.0	125	3.0	56 Ω	—	300	7.7	B9A	12	U.S.A.			
6CUB	6.3	0.45	200	9.5	150	2.8	180 Ω	—	300	6.2	B9A	13	U.S.A.			
6CX8	6.3	0.75	200	24.0	125	5.2	68 Ω	—	70	10.0	B9A	9	U.S.A.			
6DC8	6.3	0.3	250	9.0	100	2.7	2.0	1000	3.8	B9A	14	U.S.A.				
6DC7	6.3	0.3	100	10.8	100	6.4	60 Ω	—	250	4.3	B9A	15	U.S.A.			
6DR8	6.3	0.3	12.6	0.45	12.6	0.14	2.2M Ω	—	1000	1.0	B9A	14	U.S.A.			
6E8A	6.3	0.45	125	12.0	125	4.0	1.0	80	6.4	B9A	17	U.S.A.				
6E8B	6.3	0.8	200	25.0	125	7.0	68 Ω	—	75	12.6	B9A	19	U.S.A.			
6EH8	6.3	0.45	125	12.0	125	4.0	1.0	170	6.0	B9A	18	U.S.A.				
6F19	6.3	0.3	250	8.0	85	2.0	1.8	500	5.7	B9A	20	Ediswan				
6FD20	6.3	0.3	170	10.0	170	2.5	2.0	—	6.0	B9A	2	Ediswan				
6F22	6.3	0.2	250	3.0	140	0.55	2.0	—	1.85	B9A	25	Ediswan				
6F23	6.3	0.34	170	10.0	170	2.6	1.8	—	8.8	B9A	30	Ediswan				
6F40	6.3	0.2	250	3.0	140	0.55	2.0	—	2.0	B9A	21	Czech				
6FD12	6.3	0.2	250	9.0	108	2.7	2.0	1000	3.8	B9A	14	Czech				
6RP10	6.3	0.5	150	36.0	150	6.5	60 Ω	—	13.5	B9A	22	Japanese				
6RR8	6.3	0.3	150	13.0	150	4.5	110 Ω	—	12.5	B9A	23	Japanese				
6UBA	6.3	0.45	250	10.0	110	3.5	1.0	400	5.2	B9A	17	U.S.A.				
6XB8	6.3	0.45	150	4.6	150	1.1	3.5	—	1.6	B9A	24	U.S.A.				
8AUBA	8.4	0.45	200	15.0	125	3.4	82 Ω	—	150	7.0	B9A	9	U.S.A.			
8AW8A	8.4	0.45	200	13.0	150	3.5	180 Ω	—	400	9.0	B9A	9	U.S.A.			
8B8A	8.4	0.45	200	13.0	150	3.5	180 Ω	—	400	9.0	B9A	9	U.S.A.			
8BH8	8.4	0.45	200	15.0	125	3.4	82 Ω	—	150	7.0	B9A	9	U.S.A.			
8CX8	8.0	0.6	200	24.0	125	5.2	68 Ω	—	70	10.0	B9A	9	U.S.A.			
8D8	6.3	0.2	250	3.0	140	0.55	2.0	2500	1.85	B9A	25	Brimar				
8EB8	8.0	0.6	200	25.0	125	7.0	68 Ω	—	75	12.5	B9A	19	U.S.A.			
9BR8	9.45	0.3	250	10.0	110	3.5	68 Ω	—	400	5.2	B9A	26	U.S.A.			
9CL8	6.3	0.3	125	10.0	100	3.3	100 Ω	—	750	8.4	B9A	20	Brimar			
9D7	6.3	0.3	250	10.0	100	3.3	100 Ω	—	750	8.4	B9A	20	Brimar			
9UBA	9.5	0.3	250	10.0	110	3.5	1.0	400	5.2	B9A	17	U.S.A.				
9X8	9.5	0.3	150	4.6	150	1.1	3.5	—	1.6	B9A	24	U.S.A.				
10C8	10.5	0.3	135	11.5	135	3.2	100 Ω	—	190	8.0	B9A	7	U.S.A.			
10EB8	10.5	0.45	200	25.0	125	7.0	68 Ω	—	75	12.5	B9A	19	U.S.A.			
10F18	13.0	0.1	175	12.0	100	3.4	1.3	—	4.5	B9A	20	Ediswan				
10FD12	10.0	0.1	250	9.0	100	2.7	2.0	1000	3.8	B9A	14	Ediswan				
12AD5	12.6	0.1	100	6.0	100	1.75	2.5	600	2.2	B9A	27	U.S.A.				
12AL8	12.6	0.45	12.6	25.0	12.6	—	0.8	1	8.0	B9A	28	U.S.A.				
12AU8	12.6	0.3	200	15.0	125	3.4	82 Ω	—	150	7.0	B9A	9	Fivve			
12CT8	12.6	0.3	200	15.0	125	3.4	82 Ω	—	150	7.0	B9A	9	U.S.A.			
12E8	12.6	0.2	12.6	1.3	12.6	0.2	0.8	300	7.5	B9A	29	U.S.A.				
12DK5	12.6	0.3	12.6	2.0	12.6	0.65	0	100	3.3	B9A	30	U.S.A.				
12DK7	12.6	0.5	12.6	6.0	12.6	1.0	2M Ω	—	4	5.0	B9A	32	U.S.A.			
12DQ7	6.3	0.6	200	26.0	125	5.6	68 Ω	—	53	10.5	B9A	32	U.S.A.			
12D57	12.6	0.3	12.6	40.0	12.6	8.0	2.0	—	—	—	B9A	33	U.S.A.			
12D58	12.6	0.375	12.6	9.0	12.6	—	18 Ω	—	0.9	8.5	B9A	34	U.S.A.			
12DY8	12.6	0.35	12.6	14.0	12.6	2.0	2.2M Ω	—	5	6.0	B9A	35	U.S.A.			
12EC8	12.6	0.225	12.6	0.66	12.6	0.28	33K Ω	—	750	2.0	B9A	26	U.S.A.			
12EM6	12.6	0.5	12.6	6.0	12.6	1.0	2M Ω	—	4	5.0	B9A	36	U.S.A.			
17C8	17	0.1	170	5.0	85	1.75	2.0	900	2.2	B9A	37	U.S.A.				
30C13	9	0.3	170	10.0	170	2.8	2.0	400	6.2	B9A	38	U.S.A.				
50B8	50.0	0.1	200	35.0	200	7.0	16.0	20	6.4	B9A	39	U.S.A.				

SCREENED TETRODES and PENTODES—Contd.

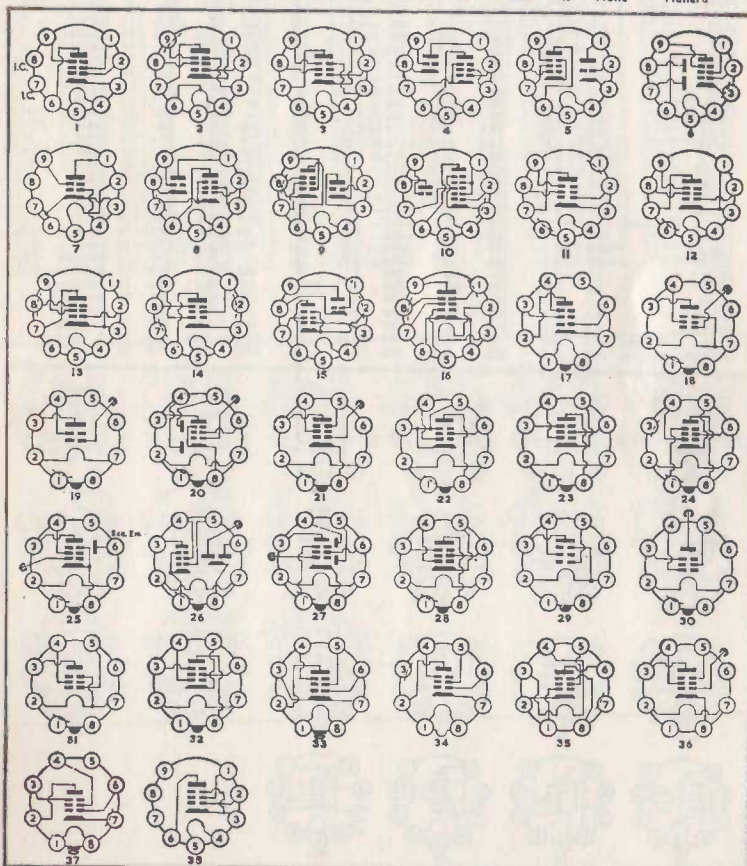
Type	FILAMENT or HEATER		ANODE		SCREEN		Neg. Grid		ra		gm		BASE		Maker
	Volts	Amps	Volts	I/mA	Volts	I/mA	Volts	Grid Sync.	K Ω	in TV	K Ω	in TV	Type	Ref.	
6486/A	6.3	0.25	120	3.5	120	3.3	2.0	—	—	—	—	—	—	—	—
6582/A	6.3	0.25	120	7.5	120	2.5	180 Ω	—	500	4.5	B9A	40	U.S.A.		
6678	6.3	0.45	250	10.0	110	3.5	68 Ω	—	400	5.2	B9A	17	U.S.A.		
6688	6.3	0.3	180	13.0	150	3.0	1.1	—	35	16.5	B9A	42	U.S.A.		

SCREENED TETRODES and PENTODES—Contd.

Type	FILAMENT or HEATER Volts Amps	ANODE Volts I/ma	SCREEN Volts I/ma	Neg. Grid Volts K Ω	BASE Type Ref.	Maker
6689	6.3 0.3	210	10.0	12.0	9.0 B9A	1 U.S.A.
6870	6.3 0.6	250	25.0	25.0	8.5 B9A	2 U.S.A.
7054	12.6 0.3	250	19.0	15.0	10.0 11.5	B9A 3 U.S.A.
7059	13.5 0.275	250	10.0	11.0	4.0 5.2	B9A 3 U.S.A.
7060	13.5 0.28	200	15.0	12.5	3.4 82 Ω	150 7.0 B9A 5 U.S.A.
7125	6.3 0.2	250	9.0	10.0	2.7 2.0	1000 3.8 B9A 6 U.S.A.
7150	6.3 0.45	135	26.0	13.5	10.0 240 Ω	40 34.0 B9A 7 U.S.A.
7159	6.3 0.45	220	12.5	13.0	3.5 62 Ω	400 7.0 B9A 7 U.S.A.
7299	12.5 0.21	125	12.0	12.5	3.8 56 Ω	170 7.8 B9A 5 U.S.A.
A1600	6.3 0.45	135	26.0	13.5	10.0 +8	— B9A 7 Ericsson
D3a	6.3 0.32	190	22.0	16.0	5.8 0	— 35.0 B9A 13 European
E80CF	6.3 0.38	170	10.0	17.0	2.8 155 Ω	400 6.2 B9A 8 European
EBF83	6.3 0.3	12.6 0.45	12.6 0.14	2.2 M Ω	1000 1.0	B9A 6 European
ECF82	6.3 0.45	250	10.0	11.0	3.5 1.0	400 5.2 B9A 4 European
ECF83	6.3 0.4	60	3.0	50	1.25 2.3	600 1.3 B9A 9 European
ECM83	6.3 0.3	12.6 0.17	12.6 0.3	1M Ω	1500 0.22	10 B9A 10 European
EFB9F	6.3 0.3	250	11.0	10.0	4.2 2.0	1000 4.4 B9A 11 European
EF806S	6.3 0.2	250	3.2	14.0	0.6 500 Ω	2500 2.0 B9A 14 European
EF860	6.3 0.3	250	10.0	25.0	2.8 3.5	650 6.8 B9A 12 E. Eurpn.
EF861	6.3 0.3	180	13.0	15.0	3.0 1.1	35 16.5 B9A 13 E. Eurpn.
LZ329	9.0 0.3	170	10.0	17.0	2.8 2.0	400 6.2 B9A 4 G.E.C.
MR195	6.3 0.2	250	3.0	14.0	0.55 2.0	2500 1.85 B9A 14 Mullard
PCF84	9.0 0.3	170	8.0	17.0	2.7 0	— 2.5 B9A 15 European
PTT217	6.3 0.3	150	12.5	15.0	3.3 120 Ω	100 16.0 B9A 16 French
R150	6.3 0.3	150	12.5	15.0	3.3 120 Ω	100 16.0 B9A 16 French
T553	18.0 0.1	210	10.0	12.0	2.1 165 Ω	400 9.0 B9A 1 European
T554	6.3 0.3	210	10.0	17.0	2.2 165 Ω	400 9.0 B9A 1 European
UCF80	27.0 0.1	170	10.0	17.0	2.8 2.0	400 6.2 B9A 8 European
UF81	12.6 0.1	250	6.0	12.5	1.7 2.5	1000 2.2 B9A 38 European
UF86	12.6 0.1	200	3.0	14.0	0.6 2.0	2500 1.8 B9A 14 European
W119	Vari-mu 13	0.1 175	12.0 10.0	3.4 1.3	— 4.5	B9A 12 G.E.C.
W739	6.3 0.2	175	12.0 10.0	3.4 1.3	— 4.5	B9A 12 G.E.C.
Z329	7.5 0.2	170	10.0 17.0	2.6 1.95	— 8.5	B9A 12 G.E.C.
1LB7	1.4 0.05	45	1.0 45	0 3.0	300 0.3	1.0 17 Japanese
2K2M	2.0 0.06	120	1.0 70	0.3 1.0	1500 0.8	1.0 18 Soviet
2K1M	2.0 0.125	120	3.5 70	0.7 1.0	1000 1.4	1.0 18 Soviet
2K2M	2.0 0.06	100	2.4 100	0.5 2.0	800 0.8	1.0 19 Soviet
6F10	6.3 0.45	250	10.0 15.0	2.5 2.0	1000 9.0	1.0 28 Czech
6B9C	6.3 0.3	250	10.0 12.5	3.0 3.0	700 1.5	1.0 20 Soviet
6X2M	6.3 0.45	300	10.0 15.0	1.5 2.0	750 9.0	1.0 21 Soviet
6X3	6.3 0.3	250	10.8 15.0	4.3 1.0	900 4.9	1.0 22 Soviet
6X3M	6.3 0.45	300	12.5 20.0	1.8 3.0	700 5.0	1.0 21 Soviet
6X4	6.3 0.45	300	10.2 15.0	2.5 2.0	750 9.0	1.0 23 Soviet
6X6M	6.3 0.3	250	2.0 100	0.8 3.0	1500 1.2	1.0 21 Soviet
6X7	6.3 0.3	250	2.0 100	0.5 3.0	1000 1.0	1.0 21 Soviet
6X8	6.3 0.3	250	3.0 100	0.8 3.0	1500 1.65	1.0 23 Soviet
6K3	6.3 0.3	250	9.25 10.0	2.5 3.0	800 2.4	1.0 23 Soviet
6K4	6.3 0.3	250	9.2 15.0	3.4 2.5	1000 4.0	1.0 22 Soviet
6K7	6.3 0.3	250	7.0 10.0	1.7 3.0	800 1.45	1.0 21 Soviet
6K9C	6.3 0.3	250	9.25 10.0	2.6 3.0	— 2.0	1.0 21 Soviet
6T9	6.3 0.65	300	30.0 15.0	4.5 3.0	130 1.7	1.0 24 Soviet
6P-V6	6.3 0.67	250	10.0 10.0	0.7 15.0	100 10.0	1.0 25 Soviet
12B1M	12.5 0.22	25	1.1 25	0.4 1.0	7.5 1.9	1.0 26 Soviet
12B2M	12.5 0.15	25	1.3 25	0.3 1.0	150 0.8	1.0 27 Soviet
12K3M	12.5 0.225	25	2.0 25	0.5 1.5	200 1.4	1.0 21 Soviet
12K9	12.5 0.15	250	3.0 170	0.8 3.0	— 1.65	1.0 23 Soviet
12K1M	12.5 0.225	25	2.0 25	0.5 1.5	200 1.4	1.0 21 Soviet
12K3	12.5 0.15	250	9.25 10.0	2.5 3.0	— 2.0	1.0 23 Soviet
12K4	12.5 0.15	250	9.2 15.0	3.4 2.5	1000 4.0	1.0 22 Soviet
6888	6.3 0.6	150	375	9.0	19.0 Gated amp.	1.0 32 U.S.A.
C5241	2.0 0.125	120	4.5 70	1.1 0.5	1000 1.2	1.0 18 Soviet
C0241	2.0 0.195	120	3.5 70	1.0 1.0	1100 1.4	1.0 18 Soviet
C0244	2.0 0.185	120	4.1 120	0.75 1.5	150 1.8	1.0 29 Soviet
C0257	2.0 0.25	100	6.0 100	1.5 3.0	1500 2.5	1.0 30 Soviet
C0258	1.8 0.32	160	10.0 120	1.7 6.0	80 2.0	1.0 31 Soviet
R116	10.0 0.55	200	8.0 200	1.6 2.2	1000 5.5	1.0 21 French
6F24	6.3 0.495	250	15.0 20.0	1.9 2.1	300 10.5	B8G 33 Czech
18F24	18.0 0.9	165	20.0 15.0	2.1 2.0	300 10.5	B8G 33 Czech
C3m	20.0 0.125	220	16.0 150	3.2 250 Ω	250 5.5	B8G 37 European
W118	Vari-mu 13.0	0.1 175	7.0 100	2.0 2.5	1000 2.4	B8A 34 G.E.C.
PTT202S	18.0 0.085	200	8.0 200	1.6 2.2	800 5.8	F8A 35 French
PTT203	18.0 0.1	200	10.5 200	2.0 1.6	500 8.5	F8A 35 French
PTT206P	18.0 0.4	200	35.0 200	5.0 5.0	43 8.5	F8A 35 French
PTT212P	6.3 0.31	200	8.0 200	1.6 230 Ω	800 5.5	F8A 35 French
PTT213P	6.3 0.3	200	10.5 200	2.9 1.6	500 8.5	F8A 35 French

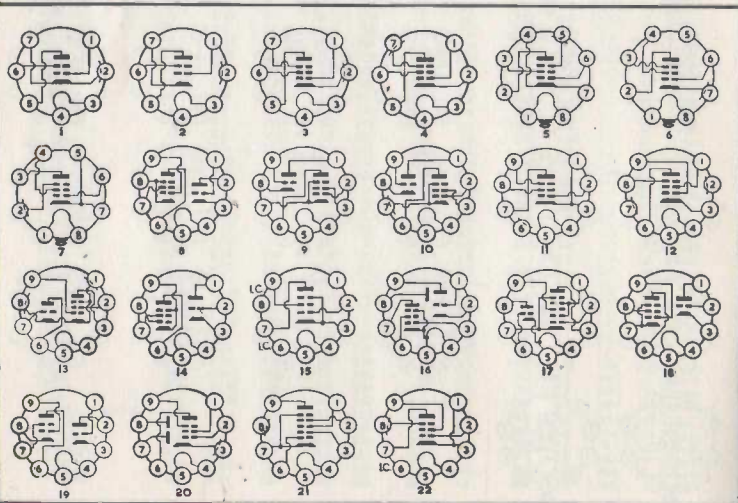
SCREENED TETRODES and PENTODES—Contd.

Type	FILAMENT or HEATER Volts Amps	ANODE Volts I/ma	SCREEN Volts I/ma	Neg. Grid Volts K Ω	BASE Type Ref.	Maker
PTT214P	6.3 0.3	150	12.3 150	3.7 1.75	200 13.5	F8A 35 French
PTT216	6.3 0.3	150	12.3 150	3.7 1.75	200 13.5	F8A 35 French
PTT241P	6.3 0.79	220	34.0 220	4.5 2.9	34 12.5	F8A 35 French
PTT243P	6.3 0.42	150	26.0 150	6.5 1.5	50 28.0	F8A 35 French
PTT301A	18.5 0.2	80	2.0 80	0.5 2.13	500 3.5	F8A 35 French
R122N	18.0 0.225	200	8.0 200	1.6 2.2	1000 5.5	F8A 36 French
R126F	18.0 0.225	200	6.0 200	1.3 4.0	1000 1.7	F8A 36 French
R142	6.3 0.3	200	10.5 200	2.0 1.6	500 8.5	F8A 35 French
R143	6.3 0.24	200	8.0 200	1.6 2.2	800 5.5	F8A 35 French
R145	18.0 0.085	200	8.0 200	2.0 1.6	230 Ω	800 5.5 F8A 35 French
M8140	6.3 0.175	150	7.0 140	2.2 3.0	420 4.3	None — Mullard
M8180	6.3 0.3	250	10.0 250	2.5 2.0	1000 7.6	None — Mullard



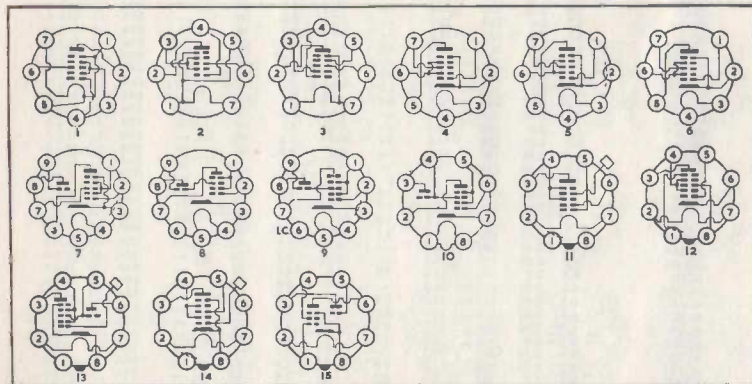
SCREENED TETRODES and PENTODES—Contd.

Type	FILAMENT or HEATER		ANODE		SCREEN		Neg. Grid	rs	gm	BASE		Maker
	Volts	Amps.	Volts	1/ma	Volts	1/ma				Type	Ref.	
2EV5	2.4	0.6	250	11.5	80	0.9	—	150	8.8	B7C	2	U.S.A.
2FV6	2.4	0.6	125	10	80	1.5	—	100	8.0	B7C	2	U.S.A.
3EV5	2.9	0.45	250	11.5	80	0.9	—	150	8.8	B7C	3	U.S.A.
6E56	6.3	0.3	12.6	3.0	6.3	1.1	0.7	150	1.9	B7G	3	U.S.A.
6E55	6.3	0.2	250	11.5	80	0.9	—	150	8.8	B7G	1	U.S.A.
6FV6	6.3	0.2	125	10	80	1.5	1.0	100	8.0	B7G	2	U.S.A.
12BZ6	12.6	0.15	200	11	150	2.6	180Ω	600	6.1	B7C	4	U.S.A.
5A/180M	6.3	0.45	180	26	150	6	315Ω	—	32.0	B8C	5	U.S.A.
C3a	6.3	0.4	220	16	250	3.0	220Ω	250	6.5	B8G	6	European
C3g	6.3	0.37	220	13	150	3.3	115Ω	320	14.0	B8G	7	European
5FV8	4.7	0.6	125	12	125	4.6	1.0	200	6.5	B9A	8	U.S.A.
5GH8	4.7	0.6	125	12	125	4.0	1.0	200	7.5	B9A	9	U.S.A.
6C16	6.3	0.45	170	10	170	2.0	400	6.2	B9A	10	Ediswan	
6EC7	6.3	0.2	175	12	100	3.5	1.3	220	—	B9A	11	U.S.A.
6F22	6.3	0.2	250	3.0	140	0.55	2.0	2500	1.85	B9A	12	Ediswan
6FV8	6.3	0.45	125	12	125	4.6	1.0	200	6.5	B9A	8	U.S.A.
6GH8	6.3	0.45	125	12	125	4.0	1.0	200	7.5	B9A	9	U.S.A.
7E07	7.3	0.3	170	10	170	2.6	1.9	—	8.9A	11	U.S.A.	
9EN7	9.0	0.3	200	7.6	138	2.3	—	—	8.5	B9A	13	U.S.A.
9GB8	9.4	0.3	250	12	250	—	—	—	8.9A	14	U.S.A.	
12FB5	12.6	0.3	170	31	180	7.3	10.3	—	—	B9A	15	U.S.A.
12FR8	12.6	0.32	12.6	1.9	12.6	0.7	0.7	400	2.7	B9A	16	U.S.A.
12FX8	12.6	0.3	12.6	0.029	12.6	1.25	0.5	500	0.3	B9A	17	U.S.A.
13EC7	13.0	0.1	175	10	100	3.1	1.3	220	—	B9A	11	U.S.A.
13GC8	13.0	0.3	250	18	250	5.0	—	5.3	—	B9A	10	U.S.A.
19B V7	20.0	0.1	170	10.0	170	2.5	2.0	400	7.2	B9A	11	U.S.A.
19BX6	20.0	0.1	170	10.0	170	2.5	2.0	400	7.2	B9A	11	U.S.A.
19CL8A	18.9	0.15	125	12.0	125	4.0	1.0	100	5.8	B9A	19	U.S.A.
19DC8	19.0	0.1	250	10	100	2.7	2.0	1000	3.8	B9A	20	U.S.A.
19EA8A	18.9	0.15	125	12.0	125	4.0	1.0	80	6.4	B9A	9	U.S.A.
27BL8	27.0	0.1	170	10	170	2.8	2.0	400	6.2	B9A	10	U.S.A.
30C15	9.0	0.3	200	7.6	138	2.3	—	—	8.5	B9A	13	Ediswan
EB1H	6.3	0.3	250	6	100	9	0	600	1.0	B9A	21	E. European
E20F	6.3	0.32	190	20	160	6	370Ω	100	26.0	B9A	22	European
EF183	6.3	0.3	200	12	90	4.2	—	500	12.5	B9A	11	European
EF184	6.3	0.3	200	10	200	3.8	—	350	15.0	B9A	11	European
EH81	6.3	0.3	250	6	100	9	0	600	1.0	B9A	21	European
PF83	4.5	0.3	50	1.85	50	0.54	2.0	AF Pre amp.	B9A	12	E. European	
WD119	19.0	0.1	250	9.0	100	2.7	2.0	1000	3.8	B9A	20	G.E.C.



FREQUENCY CHANGERS

Type	FILAMENT or HEATER		ANODE		SCREEN		Osc. Volts.	Neg. Grid	rs	gc	BASE		Maker	
	Volts.	Amps.	Volts.	1/ma	Volts.	1/ma					Type	Ref.		
6A1H (hep)	1.2	0.05	60	0.4	45	1.9	—	12	1.5	0.19	B7G	1	Soviet	
1A05 (hep)	1.4	0.025	90	2.5	45	0.64	—	0	0.8	0.25	B7G	1	Japanese	
1H33 (hep)	1.4	0.025	90	1.6	67.5	3.2	—	7.0	0.6	0.3	B7G	2	Czech	
1H34 (hep)	1.2	0.03	90	1.6	67.5	3.2	—	7.0	0.6	0.3	B7G	2	Czech	
1H35 (hep)	1.4	0.025	85	0.6	35	1.5	4	—	1.0	0.3	B7G	3	Czech	
4BE6 (hep)	4.2	0.45	200	3.0	100	7.1	—	1.5	1.0	0.47	B7G	4	U.S.A.	
4H31 (hep)	6.3	0.3	250	3.0	100	7.1	1.5	—	1.0	0.475	B7G	4	Czech	
A52II (hep)	6.3	0.3	250	7.0	100	0.47	—	1.5	1.0	0.47	B7G	4	Soviet	
12FA6 (hep)	12.6	0.15	12.6	0.67	12.6	1.2	—	0.85	—	0.3	B7G	5	U.S.A.	
12H31 (hep)	12.6	0.15	250	3.0	100	7.1	1.5	—	1.0	0.475	B7G	4	Czech	
18FX6 (hep)	18.0	0.1	100	2.3	100	6.2	—	1.5	0.4	0.48	B7G	6	U.S.A.	
6687 (hep)	6.3	0.27	150	0.2	75	—	—	10	—	—	B7G	4	U.S.A.	
DK962 (hep)	1.2	0.06	67.5	1.2	67.5	3.7	67.5	—	—	0.95	B7G	3	European	
X20 (hep)	1.4	0.05	85	0.65	30	1.65	—	0	—	1.0	0.325	B7G	3	G.E.C.
X25 (hep)	1.4	0.025	65	0.7	35	1.65	—	0	—	1.0	0.3	B7G	3	G.E.C.
6C12 (t/hep)	6.3	0.3	250	3.25	103	6.7	100	4.5	2	1.0	0.775	B9A	7	Ediswan
6D58 (t/hep)	6.3	0.3	12.6	0.17	12.6	0.3	12.6	—	1.7	1.5	0.22	B9A	7	U.S.A.
10C14 (t/hep)	19.0	0.1	250	3.25	103	6.7	100	4.5	2	1.0	0.775	B9A	7	Ediswan
14Y7 (t/hep)	14.0	0.1	100	10	—	—	—	0	—	—	—	B9A	8	U.S.A.
20D4 (t/hep)	6.3	0.3	250	7.0	100	2.3	100	4.5	2	0.9	0.775	B9A	7	Ediswan
ECH83 (t/hep)	6.3	0.3	12.6	0.17	12.6	0.3	12.6	—	1.7	1.5	0.22	B9A	7	European
UCH80 (t/hex)	14.5	0.1	250	3.0	85	3.0	82	5.1	2.0	1.0	0.75	B9A	9	European
X119 (t/hex)	19.0	0.1	250	3.25	103	6.7	100	4.5	2	1.0	0.775	B9A	7	G.E.C.
ECH113 (t/hex)	6.3	0.3	250	3.0	85	3.0	100	4.8	2	1.0	0.75	B9A	10	European
X118 (t/hex)	28.0	0.1	175	2.5	100	6.0	80	5	2.5	2.2	0.65	B8A	10	G.E.C.
2A1M (hep)	2.0	0.16	120	2.2	70	2.2	—	0	—	150	0.45	I.O.	11	Soviet
4A10C (hep)	6.3	0.3	250	3.5	100	8.2	—	0	—	800	0.45	I.O.	12	Soviet
6J17 (t/hex)	6.3	0.3	250	2.7	100	4.6	100	3	—	600	0.35	I.O.	13	Soviet
6D1M (hep)	6.3	0.3	250	2.4	100	7.1	—	3	—	1000	0.38	I.O.	14	Soviet
12M1M (t/hex)	12.5	0.225	25	1.1	25	0.3	—	1	—	7.5	—	I.O.	15	Soviet
CS222 (hep)	2.0	0.15	120	5.0	70	5.0	—	0	—	200	0.4	I.O.	11	Soviet
EH171 (hep)	6.3	0.32	250	—	100	—	—	100	—	2.0	—	—	No details	European
UH171 (hex)	20.0	0.1	250	—	100	—	—	100	—	2.0	—	—	No details	European



TRIODE AMPLIFIERS

Type	FILAMENT or HEATER		ANODE I/mA	Neg. Grid Volts	r _a Ω	g _m mA/V	Amp Factor	RK Ω	BASE		Maker
	Volts	Amps							Type	Ref.	
2BN4A	2.35	0.6	150	9.0	—	5.4	8.0	43	220	B7G	2 U.S.A.
3AF4A	3.2	0.45	80	16.0	—	2.2	6.6	15	150	B7G	1 U.S.A.
3BN4	2.8	0.45	150	9.0	—	6.3	6.8	43	220	B7G	2 U.S.A.
3BN4A	3.0	0.45	150	9.0	—	5.4	8.0	43	220	B7G	2 U.S.A.
4BN4	4.2	0.3	150	9.0	—	6.3	6.8	43	220	B7G	2 U.S.A.
6A06	6.3	0.15	250	1.0	3.0	58	1.2	70	—	B7G	9 U.S.A.
6BC32	6.3	0.3	250	1.0	2.0	62.5	1.6	100	—	B7G	9 Czech
6BN4A	6.3	0.15	150	9.0	—	5.4	8.0	43	220	B7G	2 U.S.A.
6BS4	6.3	0.225	100	16.0	4.0	1.9	8.0	15	—	B7G	1 U.S.A.
6C31	6.3	0.4	150	10.0	—	4.5	12	55	200	B7G	5 Czech
6CC31	6.3	0.45	200	6.0	—	12	3.1	37	400	B7G	3 Czech
6J6A	6.3	0.33	100	8.5	0.65	7.1	5.3	38	—	B7G	3 U.S.A.
6C7T	6.3	0.15	250	6.3	7.0	11.4	2.2	26	—	B7G	4 Soviet
6C7T	6.3	0.4	100	10.0	—	11.0	5.5	55	100	B7G	5 Soviet
6H1-II	6.3	0.45	100	8.5	2.0	7.1	5.6	39	50	B7G	3 Soviet
12A16	12.6	0.15	12.6	0.75	0	45	1.2	55	—	B7G	6 U.S.A.
12BC32	12.6	0.15	250	1.0	2.0	62.5	1.6	100	—	B7G	9 Czech
12EL6	12.6	0.15	12.6	0.75	0	45	1.2	55	—	B7G	7 U.S.A.
12FK6	12.6	0.15	12.6	1.3	—	6.2	1.2	7.5	2.2M	B7G	10 U.S.A.
12FM6	12.6	0.15	12.6	1.0	—	7	1.3	10	—	B7G	10 U.S.A.
12FT6	12.6	0.15	12.6	2.0	0	7.6	1.9	15	—	B7G	10 U.S.A.
18FY6	18.0	0.1	100	0.6	1.0	77.0	1.3	100	—	B7G	9 U.S.A.
6099	6.3	0.45	100	8.5	—	7.1	5.3	38	50	B7G	3 U.S.A.
6927	6.3	0.33	130	7.7	—	7.2	5.3	38	100	B7G	3 U.S.A.
7137	6.3	0.225	100	13.5	—	4.7	8.5	40	100	B7G	5 U.S.A.
7244	6.3	0.45	100	9.0	—	6.3	6.8	37.8	50	B7G	5 U.S.A.
7245	6.3	0.4	150	13.5	—	4.5	11.0	50	100	B7G	5 U.S.A.
EC903	6.3	0.2	100	16.0	4.0	1.9	8.0	15	—	B7G	1 European
ECC960	6.3	0.4	100	5.6	0	6	—	6	—	B7G	3 European
ECC962	6.3	0.4	100	8.5	1.7	8.3	6	50	—	B7G	3 European
M8080	6.3	0.15	250	10.5	8.5	7.7	2.2	17	—	B7G	8 Mullard
T552	6.3	0.45	100	8.5	0.85	7.1	5.3	38	—	B7G	3 European
4CM4	3.6	0.3	175	12.0	1.5	5.0	14.0	70	—	B9A	37 U.S.A.
4E58	4.0	0.6	90	15.0	1.2	—	12.5	—	—	B9A	11 U.S.A.
5BQ7A	5.6	0.45	150	9.0	—	6.1	6.4	39	220	B9A	11 U.S.A.
5B8	5.6	0.45	150	10.0	—	3.0	7.2	36	220	B9A	11 U.S.A.
5B8X7	5.6	0.45	150	10.0	—	5.6	6.8	36	220	B9A	11 U.S.A.
5BZ7	5.6	0.45	150	10.0	—	5.6	6.8	38	220	B9A	11 U.S.A.
5CL8A	4.7	0.6	125	15.0	—	5.0	8.0	40	—	B9A	13 U.S.A.
5CQ8	4.7	0.6	125	15.0	—	5.0	8.0	40	56	B9A	12 U.S.A.
5CR8	4.7	0.6	125	12.0	2.0	5.5	4.0	22	—	B9A	14 U.S.A.
5DH8	5.2	0.6	150	7.3	—	12	4.45	53	390	B9A	15 U.S.A.
5EA8	4.7	0.6	150	18.0	—	5.0	8.5	42.5	56	B9A	16 U.S.A.
5EH8	4.7	0.6	125	13.5	1.0	5.3	7.5	40.0	—	B9A	17 U.S.A.
6AN8A	6.3	0.45	200	13.0	6.0	5.75	3.3	19	—	B9A	18 U.S.A.
6AT8A	6.3	0.45	100	8.5	—	6.9	5.8	40	100	B9A	19 U.S.A.
6AU8A	6.3	0.6	150	8.5	—	8.2	4.9	40	150	B9A	20 U.S.A.
6BD7A	6.3	0.23	250	1.0	3.0	58.0	1.2	70	—	B9A	21 U.S.A.
6BE8A	6.3	0.45	150	18.0	—	5.0	8.5	42	—	B9A	15 U.S.A.
6BK7B	6.3	0.45	150	18.0	—	4.6	9.3	43	56	B9A	11 U.S.A.
6BM8	6.3	0.75	100	3.0	0	33.0	2.2	70	—	B9A	22 U.S.A.
6BN8	6.3	0.6	250	1.6	3.0	28.0	2.5	70	—	B9A	23 U.S.A.
6CC40	6.3	0.45	250	10.5	8.5	7.7	2.2	17	—	B9A	11 Czech
6CC41	6.3	0.3	250	2.3	1.5	50	7	100	240	B9A	11 Czech
6CC42	6.3	0.35	150	8.0	2.0	9.5	5.25	55	240	B9A	31 Czech
6CG8A	6.3	0.45	100	8.5	—	6.9	5.8	40	100	B9A	24 U.S.A.
6CL8A	6.3	0.45	125	15.0	—	5.0	8.0	40	—	B9A	13 U.S.A.
6CM4	6.3	0.2	175	12.0	1.5	5.0	14.0	70	—	B9A	37 U.S.A.
6CQ8A	6.3	0.45	125	15.0	—	5.0	8.0	40	56	B9A	12 U.S.A.
6CR8	6.3	0.45	125	12.0	2.0	4.0	5.5	22	—	B9A	14 U.S.A.
6CS8	6.3	0.45	125	12.0	2.0	4.0	5.5	22	—	B9A	25 U.S.A.
6CUB	6.3	0.45	200	13.0	6.0	5.75	3.3	19	—	B9A	26 U.S.A.
6CW7	6.3	0.4	90	12.0	1.5	3.7	6.2	23	—	B9A	27 U.S.A.
6CX8	6.3	0.75	150	9.2	—	8.7	4.4	40	150	B9A	20 U.S.A.
6CY7	6.3	0.75	250	1.2	3.0	52.0	1.3	68	—	B9A	28 U.S.A.
6D47	6.3	0.3	250	9.0	—	8.0	7.7	20	—	B9A	29 U.S.A.
6DE7	6.3	0.95	250	5.5	11.0	8.75	2.0	17.5	—	B9A	29 U.S.A.
6DJ8	6.3	0.365	90	15.0	1.3	0.925	6.5	6	—	B9A	11 U.S.A.
6DR7	6.3	0.9	250	1.4	3.0	40	1.6	60	—	B9A	28 U.S.A.
6DT8	6.3	0.3	250	10.0	—	10.5	5.5	60	—	B9A	11 U.S.A.
6DX8	6.3	0.71	200	3.0	1.7	20.0	1.6	25	—	B9A	20 U.S.A.
6DZ8	6.3	0.9	120	0.8	—	70.0	1.4	100	1500	B9A	22 U.S.A.
6EA8	6.3	0.45	150	18.0	—	5.0	8.5	42.5	56	B9A	16 U.S.A.
6EB8	6.3	0.75	250	2.0	2.0	36.0	2.7	100	—	B9A	32 U.S.A.
6EH8	6.3	0.45	125	13.5	1.0	5.3	7.5	40	—	B9A	17 U.S.A.
6E8	6.3	0.365	90	15.0	1.2	—	12.5	—	—	B9A	11 U.S.A.

TRIODE AMPLIFIERS—Contd.

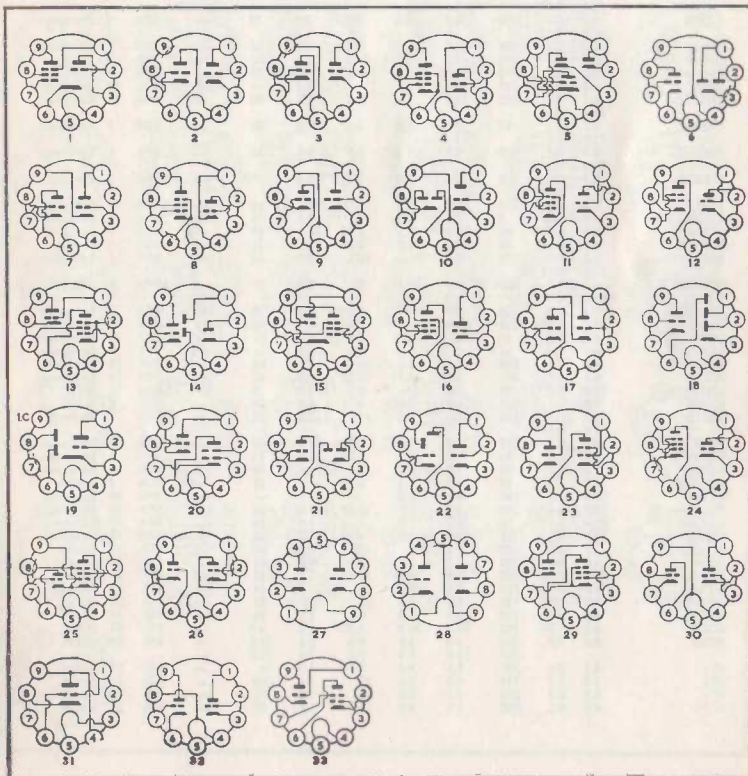
Type	FILAMENT or HEATER		ANODE I/mA	Neg. Grid Volts	r _a Ω	g _m mA/V	Amp Factor	RK Ω	BASE		Maker
	Volts	Amps							Type	Ref.	
6EZ8	6.3	0.45	125	4.2	1.0	13.5	4.2	57	—	B9A	38 U.S.A.
6L12	6.3	0.45	200	11.0	2.0	7.0	6.8	48	—	B9A	11 Ediswan
6L13	6.3	0.3	250	1.2	2.0	62.5	1.6	100	—	B9A	33 Ediswan
6LD12	6.3	0.45	250	1.0	3.0	58.0	1.2	70	—	B9A	34 Ediswan
6LD13	6.3	0.2	250	1.0	3.0	58.0	1.2	70	—	B9A	21 Ediswan
6T8A	6.3	0.45	250	1.0	3.0	58.0	1.2	70	—	B9A	35 U.S.A.
6U8A	6.3	0.45	150	18.0	—	5.0	8.5	42.5	56	B9A	36 U.S.A.

TRIODE AMPLIFIERS—Contd.

Type	FILAMENT or HEATER		ANODE		Neg. Grid Volts	r _a	g _m mA/V	Amp Factor	R _k Ω	BASE Type	Ref.	Maker
	Volts	Amps	Volts	I _{mA}								
CXB8A	6.3	0.45	150	8.0	—	6.9	5.8	40	—	B9A	2	U.S.A.
6H1II	6.3	0.6	250	8.0	—	8.0	4.3	35	600	B9A	2	Soviet
6H2II	6.3	0.3	250	2.3	1.5	50.0	2.0	100	—	B9A	3	Soviet
7DJB	12.6	0.15	—	—	—	—	—	—	—	B9A	2	U.S.A.
8A1BA	7.0	0.3	90	15.0	1.3	2.6	12.5	33	—	B9A	4	U.S.A.
8A1BA	8.4	0.45	150	9.3	—	8.2	4.9	40	150	B9A	4	U.S.A.
8A5W/A	8.4	0.45	200	4.0	2.0	17.5	4.0	70	—	B9A	4	U.S.A.
8BA8/A	8.4	0.45	200	8.0	—	6.7	2.7	10	—	B9A	4	U.S.A.
8BH8	8.4	0.45	150	9.5	—	5.15	3.3	17	—	B9A	4	U.S.A.
8BN8	8.4	0.45	250	1.6	3.0	28.0	2.5	70	—	B9A	5	U.S.A.
8CN7	4.2	0.225	—	1.0	3.0	58.0	1.2	70	—	B9A	6	U.S.A.
8C57	8.4	0.45	250	19.0	10.5	3.75	4.5	15.5	—	B9A	7	U.S.A.
8C57	8.0	0.6	250	10.0	8.5	7.7	2.2	17.0	—	B9A	7	U.S.A.
8CX8	8.0	0.6	150	9.2	—	8.7	4.4	40	150	B9A	4	U.S.A.
8CY7	7.9	0.6	250	1.2	3.0	52.0	1.3	68	—	B9A	7	U.S.A.
8EB8	8.0	0.6	250	2.0	2.0	36.0	2.7	100	—	B9A	8	U.S.A.
9AU7	4.7	0.45	250	10.5	8.5	7.7	2.2	17	—	B9A	9	U.S.A.
9A7	9.4	0.225	—	—	—	—	—	—	—	B9A	2	Fivre
9BK7A	9.45	0.3	150	18.0	—	4.6	9.3	43	56	B9A	10	U.S.A.
9BR7	4.7	0.6	100	3.7	—	15.0	4.0	60	270	B9A	10	U.S.A.
9C	9.4	0.3	—	—	—	—	—	—	—	B9A	11	U.S.A.
9C18	9.45	0.3	150	18.0	—	5.0	8.0	40	56	B9A	12	U.S.A.
9C18	9.45	0.3	125	15.0	—	5.0	8.0	40	—	B9A	12	U.S.A.
9DZ8	9.0	0.6	120	0.8	—	70.0	1.4	100	150	B9A	13	U.S.A.
9T8	9.45	0.3	100	0.8	1.0	54.0	1.3	70	—	B9A	14	Fivre
9UBA	9.45	0.3	150	18.0	—	5.0	8.5	42.5	56	B9A	15	U.S.A.
9XB	9.5	0.3	150	18.0	—	5.0	8.5	42.5	56	B9A	1	U.S.A.
10C9	10.5	0.3	250	7.3	—	12.0	4.4	52	390	B9A	16	U.S.A.
10DA7	10.5	0.6	250	9.0	8.0	7.7	2.6	20	—	B9A	7	U.S.A.
10DE7	10.0	0.6	250	5.5	11.0	8.75	2.0	17.5	—	B9A	17	U.S.A.
10E8	10.5	0.45	250	2.0	2.0	36.0	2.7	100	—	B9A	8	U.S.A.
10L14	10.0	0.1	170	8.7	—	8.1	6.0	50	160	B9A	2	Ediswan
10LD12	28.0	0.1	250	1.0	3.0	58.0	1.2	70	—	B9A	18	Ediswan
10LD13	13.0	0.1	100	0.8	1.0	50.0	1.4	70	—	B9A	19	Ediswan
10PL12	10.0	0.1	100	3.5	0	28.0	2.5	70	—	B9A	13	Ediswan
11CY7	11.0	0.45	25.0	1.2	3.0	52.0	1.3	68	—	B9A	7	U.S.A.
12AE7	6.3	0.9	12.6	1.9	—	3.25	4.0	13	1.5M	B9A	9	U.S.A.
12AL8	12.6	0.45	12.6	7.5	0.99	6.5	6.4	1.0M	—	B9A	20	U.S.A.
12AL8	12.6	0.45	12.6	0.25	0.9	27.0	0.55	15.0	—	B9A	4	Fivre
12AU8	12.6	0.3	150	8.5	—	8.2	4.9	40	150	B9A	4	Fivre
12BR7A	6.3	0.45	100	3.7	—	15.0	4.0	60	270	B9A	10	U.S.A.
12CT8	12.6	0.3	150	9.0	—	8.2	4.9	40	150	B9A	16	U.S.A.
12DF7	6.3	0.3	250	1.2	2.0	55	1.6	100	—	B9A	9	U.S.A.
12DT7	6.3	0.3	250	1.2	2.0	62.5	1.6	100	—	B9A	9	U.S.A.
12DT8	12.6	0.15	—	—	—	—	—	—	—	B9A	2	U.S.A.
12DV7	12.6	0.15	12.6	0.4	—	18.6	0.75	14.0	2.2M	B9A	21	U.S.A.
12DW7	6.3	0.3	250	1.2	3.0	62.5	1.6	100	—	B9A	9	U.S.A.
12DW8	12.6	0.15	250	10.5	8.5	7.7	2.2	17	—	B9A	9	U.S.A.
12DW8	12.6	0.45	12.6	1.9	—	3.0	2.7	9.5	1.5M	B9A	22	U.S.A.
12DY8	12.6	0.35	12.6	1.2	0	100	2.0	20	—	B9A	23	U.S.A.
12DZ8	12.6	0.45	120	0.8	—	70.0	1.4	100	1500	B9A	13	U.S.A.
12EC8	12.6	0.225	12.6	2.4	—	5.3	4.7	25	4.7K	B9A	11	U.S.A.
13DE7	13.3	0.45	250	5.5	11.0	8.75	2.0	17.5	—	B9A	17	U.S.A.
13D7	13.0	0.45	150	35.0	17.5	0.925	6.5	6.0	—	B9A	17	U.S.A.
13DR7	13.0	0.45	250	1.4	3.0	40.0	1.6	68	—	B9A	7	U.S.A.
14G6	14.0	0.1	170	1.5	1.55	42.0	1.65	70	—	B9A	19	U.S.A.
15DQ8	15.0	0.3	200	3.0	1.7	16.25	1.0	65	—	D9A	24	U.S.A.
18DZ8	18.0	0.3	120	0.8	—	70.0	1.4	100	1500	B9A	13	U.S.A.
19DE7	19.4	0.3	250	5.5	11.0	8.75	2.0	17.5	—	B9A	17	U.S.A.
30C13	9.0	0.3	100	14.2	2.0	4.0	5.0	20	—	B9A	25	Ediswan
30L15	7.0	0.3	90	—	1.2	3.1	9.0	28	—	B9A	25	Ediswan
30PL13	16.0	0.3	250	2.0	—	5.3	3.4	18	—	B9A	33	Ediswan
35DZ8	35.0	0.1	120	0.8	—	70.0	1.4	100	1500	B9A	13	U.S.A.
50B-H8	50.0	0.1	100	3.5	0	28.0	2.5	70	—	B9A	13	U.S.A.
39EA	6.3	0.3	150	8.2	—	6.2	3.5	24	—	B9A	5	Ericsson
407A	20.1	0.1	150	8.2	—	6.2	5.5	35	240	B9A	28	Ericsson

TRIODE AMPLIFIERS—Contd.

Type	FILAMENT or HEATER		ANODE		Neg. Grid Volts	r _a	g _m mA/V	Amp Factor	R _k Ω	BASE Type	Ref.	Maker
	Volts	Amps	Volts	I _{mA}								
6189	6.3	0.3	250	10.5	8.5	7.7	2.2	—	—	B9A	9	U.S.A.
6189	12.6	0.15	—	—	—	—	—	—	—	B9A	9	U.S.A.
6385	6.3	0.35	150	8.2	—	6.25	5.5	35	240	B9A	27	U.S.A.
6386	6.3	0.35	100	9.6	—	4.25	4	17	200	B9A	27	U.S.A.
6414	6.3	0.45	180	8.0	2.0	7.65	5.55	42.5	—	B9A	9	U.S.A.
6478	12.6	0.225	—	—	—	—	—	—	—	B9A	29	U.S.A.
6480	6.3	0.45	250	14.0	—	3.0	6.7	20	620	B9A	30	U.S.A.
6480	12.6	0.4	—	—	—	—	—	—	—	B9A	9	U.S.A.
6851	12.6	0.125	250	1.0	—	60.0	1.2	70	3100	B9A	9	U.S.A.
6854	6.3	0.25	—	—	—	—	—	—	—	B9A	27	U.S.A.
6877	6.3	0.8	150	75.0	12.0	2.0	6.5	13	—	B9A	31	U.S.A.
6900	6.3	0.9	120	36.0	2.0	2.0	11.5	23	—	B9A	32	U.S.A.
6913	12.6	0.45	—	—	—	—	—	—	—	B9A	9	U.S.A.
6913	6.3	0.6	150	11.0	5.0	3.7	4.6	18	—	B9A	9	U.S.A.
6922	12.6	0.3	200	15.0	9.0	2.9	11.5	33	—	B9A	2	U.S.A.

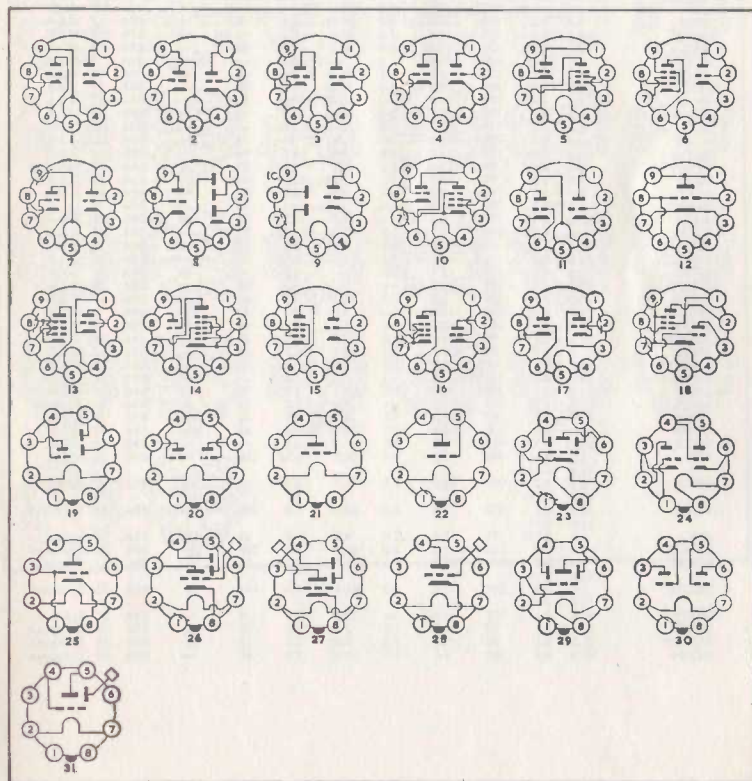


TRIODE AMPLIFIERS—Contd.

Type	FILAMENT or HEATER		ANODE		Neg. Grid Volts	r _a Ω	r _m mA/V	Amp Factor	RK Ω	BASE Type	Ref.	Maker		
	Volts	Amps	Volts	I/mA										
6955	12.6	0.175	250	11.5	—	7.0	2.35	—	—	—	—	—		
7025	6.3	0.3	250	1.2	2.0	62.5	1.6	100	—	B9A	1	U.S.A.		
7044	12.6	0.15	120	36.0	2.0	1.9	10	19	—	B9A	2	U.S.A.		
7057	12.6	0.45	150	10.0	—	5.3	6.8	36	220	B9A	3	U.S.A.		
7058	13.5	0.155	250	1.25	2.0	61.0	1.65	100	—	B9A	4	U.S.A.		
7059	13.5	0.195	150	18.0	—	4.7	8.5	40	56	B9A	5	U.S.A.		
7060	13.5	0.28	150	9.0	—	8.2	4.9	40	150	B9A	6	U.S.A.		
7062	6.3	0.4	100	8.5	0.8	6.4	7.8	50	—	B9A	7	U.S.A.		
7118	12.6	0.2	100	8.5	1.3	5.9	5.6	32	—	B9A	7	U.S.A.		
7119	12.6	0.2	180	2.3	7.0	2.75	6.4	17.5	—	B9A	2	U.S.A.		
7199	6.3	0.45	215	9.0	8.5	0.0	2.1	17	—	B9A	1	U.S.A.		
7258	12.5	0.21	150	15.0	3.0	4.7	4.5	21	—	B9A	6	U.S.A.		
7318	6.3	0.35	300	900	Pulse Amplifier	—	—	—	—	B9A	1	U.S.A.		
B109	12.6	0.175	26.0	0.1	170	8.7	—	8.4	6.0	50	160	B9A	3	G.E.C.
D729	6.3	0.3	200	10.0	—	—	—	—	—	18	—	B9A	3	G.E.C.
CC81E	6.3	0.3	250	10.0	—	10.9	5.5	60	60	60	60	B9A	1	European
CC82E	12.6	0.15	6.3	0.3	250	10.5	8.5	7.7	2.2	17	—	B9A	1	European
CC84E	6.3	0.4	250	14.5	—	3.85	5.2	20	620	B9A	1	European		
DH109	28.0	0.1	270	1.0	3.0	53.0	1.2	70	—	B9A	8	G.E.C.		
DH119	14.0	0.1	170	1.5	1.5	42.0	1.65	70	—	B9A	9	G.E.C.		
E80CF	6.3	0.38	100	14.0	—	—	5.0	—	145	B9A	10	European		
E81CC	6.3	0.3	250	10.0	—	10.9	5.5	60	60	B9A	11	European		
E180CC	12.6	0.15	6.3	0.4	100	8.5	0.8	6.4	7.8	50	—	B9A	7	European
E181CC	12.6	0.2	6.3	0.4	100	8.5	1.3	5.9	5.6	32	—	B9A	7	European
E182CC	12.6	0.2	6.3	0.4	100	8.5	1.3	5.9	5.6	32	—	B9A	7	European
E182CC	6.3	0.64	150	2.3	7.0	2.75	6.4	17.5	—	B9A	2	European		
EC86	12.6	0.32	6.3	0.2	175	12.0	1.5	4.86	140	68	—	B9A	12	European
ECC86	6.3	0.33	6.3	1.0	0.45	4.5	2.6	13	100K	B9A	3	European		
ECC88	6.3	0.33	90	15.0	1.3	2.64	12.5	33	—	B9A	3	European		
ECC189	6.3	0.365	90	15.0	1.2	2.64	12.5	33	—	B9A	4	French		
ECC8015	6.3	0.3	250	10.0	—	10.9	5.5	60	60	B9A	1	European		
ECC8025	12.6	0.15	6.3	0.3	250	10.5	8.5	7.7	2.2	17	—	B9A	1	European
ECC865	12.6	0.15	6.3	0.3	250	10.5	8.5	7.7	2.2	17	—	B9A	1	European
ECF82	6.3	0.45	150	18.0	1.0	5.0	8.5	42.5	56	B9A	3	European		
ECF83	6.3	0.4	60	6.5	3.7	3.0	3.6	11	—	B9A	13	European		
ECF83	6.3	0.3	12.6	0.75	—	—	1.4	—	47K	B9A	14	European		
ECL83	6.3	0.6	200	2.4	1.5	34	2.5	85	—	B9A	15	European		
ECL84	6.3	0.71	200	3.0	1.7	16.25	4.0	65	—	B9A	16	European		
LN319	13.0	0.3	250	2.0	—	5.3	3.4	18	—	B9A	15	G.E.C.		
LZ329	9.0	0.3	120	6.0	2.0	4	5.0	20	—	B9A	5	G.E.C.		
M8162	6.3	0.3	250	10.0	2.0	11	5.5	60	—	B9A	1	Mullard		
PCC86	3.8	0.2	175	12.0	1.5	4.86	14.0	68	—	B9A	12	European		
PCC88	7.0	0.3	90	15.0	1.2	2.7	12.5	33	—	B9A	3	European		
PCC89	7.2	0.3	90	15.0	1.2	3.0	12.0	36	—	B9A	17	European		
PCC189	7.0	0.3	90	15.0	1.2	2.64	12.5	33	—	B9A	4	French		
PCF84	9.0	0.3	100	14.0	2.0	2.5	—	—	—	B9A	18	European		
PCL84	15.0	0.3	200	3.0	1.7	16.25	4.0	65	—	B9A	16	European		
UCCL84	21.0	0.1	90	12.0	1.5	4	6.0	24	—	B9A	17	European		
UCF80	27.0	0.1	100	14.0	2.0	4	5.0	20	—	B9A	10	European		
2F2-M	2.0	0.06	120	0.5	0	130	0.35	45	—	I.O.	19	Soviet		
2H1M	2.0	0.24	120	1.2	2.0	32	1.0	32	—	I.O.	20	Soviet		
2C3-M	2.0	0.12	120	1.5	2.5	17	1.3	22	—	I.O.	21	Soviet		
2D1-M	2.0	0.125	120	3.3	1.0	15	1.6	24	—	I.O.	22	Soviet		
2Φ2-M	2.0	0.06	120	2.0	1.0	28	0.9	25	—	I.O.	22	Soviet		
6CC10	6.3	0.6	250	6.5	9.0	9.1	2.2	20	1350	I.O.	24	Czech		
6CK4	6.3	1.25	250	55.0	26.0	1.05	6.5	6.7	—	I.O.	25	U.S.A.		
6DN7	6.3	0.9	250	6.6	8.0	9.0	2.5	22.5	—	I.O.	24	U.S.A.		
6F1	6.3	0.3	250	33.0	9.5	2.2	7.4	16.0	—	I.O.	26	Soviet		
6F2	6.3	0.3	250	9.5	9.0	8.5	1.9	16	—	I.O.	23	Soviet		
6F7	6.3	0.3	250	1.0	2.0	91	1.1	100	—	I.O.	23	Soviet		
6F7C	6.3	0.3	250	1.1	3.0	60	1.2	72	—	I.O.	26	Soviet		
6F7C	6.3	0.3	250	1.1	3.0	58	1.2	70	—	I.O.	27	Soviet		

TRIODE AMPLIFIERS—Contd.

Type	FILAMENT or HEATER		ANODE		Neg. Grid Volts	r _a Ω	r _m mA/V	Amp Factor	RK Ω	BASE Type	Ref.	Maker
	Volts	Amps	Volts	I/mA								
6H8C	3.3	0.6	250	9.0	8.0	7	3.0	21	—	I.O.	24	Soviet
6H9C	6.3	0.3	250	2.3	2.0	44	1.6	70	—	I.O.	24	Soviet
6C2C	6.3	0.3	250	9.0	8.0	7.7	2.6	20	—	I.O.	22	Soviet
6D3YC	6.3	0.3	250	0.9	2.0	66	1.5	100	—	I.O.	28	Soviet
85N7GTB	8.4	0.45	250	9.0	8.0	7.7	2.6	20	—	I.O.	24	U.S.A.
12I1	12.6	0.15	250	9.5	9.0	8.5	1.9	16	—	I.O.	29	Soviet
13D2	12.6	0.15	250	1.15	2.0	91	1.1	100	—	I.O.	29	Soviet
31B×7	6.3	0.6	250	9.0	8.0	7.7	2.6	20	—	I.O.	24	Brimar
6082A	31.5	0.3	250	42.0	—	1.3	7.6	10.0	390	I.O.	24	U.S.A.
639A	26.5	0.6	135	125.0	—	0.28	7.0	2.0	250	I.O.	24	U.S.A.
6520	26.5	1.2	190	185.0	—	0.2	13.5	2.7	200	I.O.	24	U.S.A.
6520	6.3	2.5	135	112.0	—	0.28	7.0	2.0	250	I.O.	24	U.S.A.
7236	6.3	2.4	120	120.0	14.0	0.4	12.5	4.8	—	I.O.	1	European
ECC230	6.3	2.5	135	125.0	—	0.28	7.0	2	250	I.O.	24	European
R125C	18.0	0.4	250	5.0	5.5	13	2.5	33	—	I.O.	26	French
CB240	2.0	0.125	120	3.0	2.5	10	2	20	—	I.O.	22	Soviet
CB243	2.0	0.24	120	2.2	0	16	1.8	29	—	I.O.	30	Soviet
CB245	2.0	0.32	120	10.0	7.5	2	2.2	4.4	—	I.O.	31	Soviet
YB240	2.0	0.125	120	3.5	1.0	15.6	1.6	25	—	I.O.	22	Soviet

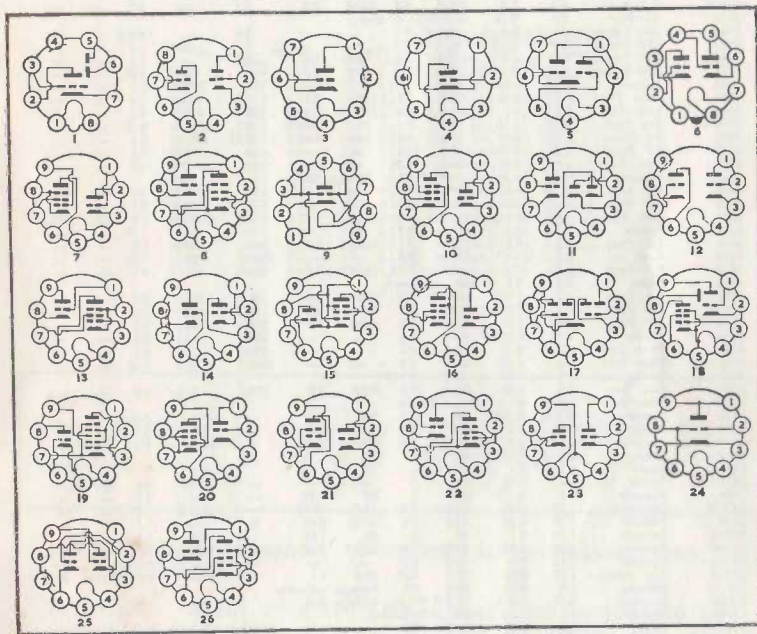


TRIODE AMPLIFIERS—Contd.

Type	FILAMENT or HEATER		ANODE		Neg. Grid Volts	r _a Ω	g _m mA/V	Amp Factor	R _K Ω	BASE		Maker
	Volts	Amps	Volts	I/mA						Type	Ref.	
DH118	1.40	0.1	170	1.5	1.6	42.0	1.65	70	1000	B8A	1	G.E.C.
DH718	6.3	0.225	250	1.0	3.0	54.0	1.3	70	—	B8A	1	G.E.C.
PTT120P	18.0	0.2	220	10.0	—	11.0	5.5	60	150	F8A	2	French
PTT141	6.3	0.3	150	23.0	1.3	2.0	25.0	50	60	F8A	2	French
R148	18.0	0.2	220	10.0	1.5	11.0	5.5	60	—	F8A	2	French
3AB4	3.15	0.3	250	10.0	2.0	10.0	5.5	55	—	B7G	3	U.S.A.
3ER5	3.6	0.3	200	10.0	1.2	7.8	10.5	80	—	B7G	4	U.S.A.
6ER5	6.3	0.18	200	10.0	1.2	7.8	10.5	80	—	B7G	4	U.S.A.
10ER5	10.0	0.1	200	10.0	1.2	7.8	10.5	80	—	B7G	4	U.S.A.
6535	6.3	0.45	100	8.5	0.85	7.1	5.3	38	—	B7G	5	U.S.A.
EC95	6.3	0.18	200	10.0	1.2	7.8	10.5	80	—	B7G	4	European
PC92	3.15	0.3	250	10.0	2.0	12.0	5.0	60	—	B7G	3	European
PC95	3.6	0.3	200	10.0	1.2	7.8	10.5	80	—	B7G	4	European
UC95	10.0	0.1	200	10.0	1.2	7.8	10.5	80	—	B7G	4	European
6EA7 (U.S.A.)	6.3	1.05	250	1.5	3.0	34.00	1.9	65	—	I.O.	6	U.S.A.
10EG7	9.7	0.6	250	5.5	11.0	8.75	2.0	17.5	—	I.O.	6	U.S.A.
5F5	4.7	0.6	125	14.0	1.0	5.00	8.0	40	—	B9A	7	U.S.A.
5GH8	4.7	0.6	125	14.0	1.0	5.4	8.5	46	—	B9A	8	U.S.A.
6C16	6.3	0.45	100	14.00	2.0	4.0	5.0	20	—	B9A	8	Ediswan
6CR4	6.3	0.37	130	16.0	1.0	—	60.0	—	—	B9A	9	U.S.A.
6DQ8	6.3	0.71	200	3.0	1.7	16.25	4.0	65	—	B9A	10	U.S.A.
6FM8	6.3	0.45	280	1.0	3.0	58.00	1.2	70	—	B9A	11	U.S.A.
6FV8	6.3	0.45	16.0	1.0	5.00	—	46	—	—	B9A	12	U.S.A.
6FW8	6.3	0.4	125	15.0	2.0	2.62	12.5	33	—	B9A	12	U.S.A.
6FY8	6.3	1.2	125	2.5	1.5	—	2.0	—	—	B9A	13	U.S.A.
6GA8	6.3	0.3	250	8.0	—	—	—	18	—	B9A	12	U.S.A.
6GH8	6.3	0.45	125	13.5	1.0	5.4	8.5	46	—	B9A	8	U.S.A.
6L16	6.3	0.4	90	12.0	1.5	3.7	6.2	23	—	B9A	14	Ediswan
7ES8	7.0	0.3	90	15.0	1.2	2.64	12.5	33	—	B9A	14	U.S.A.
9EN7	9.0	0.3	120	6.0	—	4.0	5.0	20	—	B9A	15	U.S.A.
9GB8	9.0	0.3	250	8.0	—	—	—	18	—	B9A	16	U.S.A.
10L14	26.0	0.1	170	8.7	—	8.4	6.0	50	160	B9A	12	Ediswan
12FQ8	12.6	0.15	250	1.5	1.5	76.0	1.25	95	—	B9A	17	U.S.A.
12FR8	12.6	0.32	12.6	0.6	8.3	1.2	1.0	10	—	B9A	18	U.S.A.
12FX8	12.6	0.3	12.6	1.3	0.8	7.8	1.4	10	—	B9A	19	U.S.A.
12FY8	12.6	0.6	125	2.5	1.5	—	2.0	—	—	B9A	13	U.S.A.
13GC8	13.0	0.3	250	8.0	—	—	—	18	—	B9A	20	U.S.A.
15DX8	15.0	0.3	200	3.0	1.7	16.25	4.0	65	—	B9A	10	U.S.A.
19CL8A	18.9	0.15	125	15.00	—	5.0	8.0	40	56	B9A	8	U.S.A.
19EA8A	18.9	0.15	150	18.00	—	5.0	8.5	42.5	56	B9A	8	U.S.A.
21CV7	21.0	0.1	90	12.0	1.5	4.0	6.0	24	—	B9A	14	U.S.A.
21DJ8	21.0	0.1	90	15.0	1.2	2.7	12.5	33	—	B9A	12	U.S.A.
21E58	21.0	0.1	90	15.0	1.2	2.64	12.5	33	—	B9A	12	U.S.A.
25FY8	25.0	0.3	125	2.5	1.5	—	2.0	—	—	B9A	13	U.S.A.
27BL8	27.0	0.1	100	14.00	2.0	4.0	5.0	20	—	B9A	22	U.S.A.
30C15	9.0	0.3	120	6.0	—	4.0	5.0	20	—	B9A	15	Ediswan
45DQ8	45.0	0.1	200	3.0	1.7	16.25	4.0	65	—	B9A	10	U.S.A.
45DX8	45.0	0.1	200	3.0	1.7	16.25	4.0	65	—	B9A	10	U.S.A.
50FY8	50.00	0.15	125	2.5	1.5	—	2.0	—	—	B9A	13	U.S.A.
7247	6.3	0.3	250	1.2	2.0	80.0	1.25	100	—	B9A	23	U.S.A.
E82CC	12.6	0.15	250	10.5	8.5	7.7	2.2	17	—	B9A	23	European
E83CC	6.3	0.3	250	1.2	2.0	62.5	1.6	100	—	B9A	23	European
E86C	6.3	0.165	175	12.0	2.0	4.9	14.0	68	125	B9A	24	European
E283CC	6.3	0.3	250	1.2	2.0	62.5	1.6	100	—	B9A	25	European
ECC802	6.3	0.3	250	10.5	8.5	7.7	2.2	17	—	B9A	23	European
ECC803	6.3	0.3	250	1.2	2.0	62.5	1.6	100	—	B9A	23	European
LN119	48.0	0.1	100	3.0	—	33.0	2.2	70	—	B9A	26	G.E.C.
UC98	21.0	0.1	90	15.0	1.2	2.7	12	33	—	B9A	12	European
UCCL189	21.0	0.1	90	15.0	1.2	2.64	12.5	33	—	B9A	12	European
UCL84	45.0	0.1	200	3.0	1.7	16.25	4.0	65	—	B9A	10	European

TRIODE AMPLIFIERS—Contd.

Type	FILAMENT or HEATER	ANODE	Neg. Grid	r _a Ω	g _m mA/V	Amp Factor	R _K Ω	BASE	Ref.	Maker
	Volts	Volts	Volts					Type <td></td> <td></td>		
416B	6.3	1.2	200	30.0	—	—	260	B8A	1	Ericsson
DX144	6.3	0.65	300	25.0	—	2.3	19.0	—	—	U.S.A.
DX145	6.3	0.65	300	70.0	—	2.3	19.0	—	—	E. Eurpn.
EC760	6.3	0.15	150	13.0	2.4	40	6.5	26	—	U.S.A.
M8144	6.3	0.3	250	10.0	2.0	11.0	5.5	60	—	No base — Mullard
M8149	12.6	0.15	—	—	—	—	—	—	—	No base — Mullard
M8179	6.3	0.45	250	10.5	8.5	7.7	2.2	17	—	No base — Mullard
M8214	6.3	0.45	100	8.5	0.85	7.1	5.3	38	—	No base — Mullard
M8214	6.3	0.3	250	1.2	2.0	62.5	1.6	100	—	No base — Mullard
R243	12.6	0.15	—	—	—	—	—	—	—	No base — French
R243	6.3	0.4	250	20.0	3.5	5.0	6.0	30	—	No base — French



SUB-MINIATURE VALVES

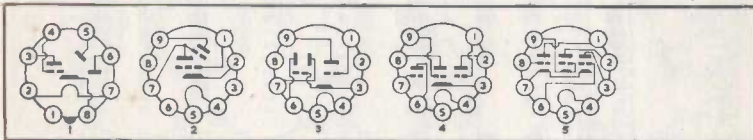
Type	FILAMENT or HEATER		ANODE		SCREEN		Neg Grid Volts (R _{G2})	r _a (k Ω)	gm. (mA/V)	Anode Load Ω	Output (mW)
	Volts	Amps	Volts	I _{mA}	Volts	I _{mA}					
1C91	Triode	1.25	0.13	130	—	—	2.5	—	—	—	—
1EDR1	Dio Pent.	1.25	0.015	45	0.8	45.0	0.25	—	0.35	—	—
1ER11	R.F. Pent.	1.25	0.025	67.5	1.6	67.5	0.4	—	1.1	—	—
1L91	L.F. Pent.	1.25	0.025	45.0	1.25	45.0	0.4	4.5	225	0.5	30K
1N3	Tuning Ind.	1.4	0.025	10.0	0.25	Target	—	13.5	—	—	—
11E5	Out. Pent.	1.25	0.05	45.0	1.1	45.0	0.37	2.0	—	0.5	50K
2L2	Rectifier	2.0	0.2	22000 P.I.V.	—	0.5mA	—	—	—	—	—
25/141G	Diode	6.3	0.15	150V. D.C.	9 mA	—	—	—	—	—	—
5A/172G	Pentode	6.3	0.15	100	7	100	2.2	1.4	250	5.0	—
5A/173G	Pentode	6.3	0.2	100	7.5	100	2.5	2.0	250	5.0	—
5A/174G	Pentode	6.3	0.2	100	7	100	2.2	1.4	150	3.0	—
5A/175G	Pentode	6.3	0.15	100	7.2	100	2.2	1.2	260	4.5	—
6C6b	Triode	6.3	0.2	120.0	9.0	—	—	2.0	5.0	5.0	—
6C7b	Triode	6.3	0.2	250.0	4.5	—	—	2.0	16.25	4.0	—
6F24	Pentode	6.3	0.45	250.0	15.0	200	1.9	2.1	300	10.5	—
6K1b	R.F. Pent.	6.3	0.2	120.0	7.5	120.0	3.5	2.0	—	4.8	—
6K6b	R.F. Pent.	6.3	0.2	120.0	5.5	120.0	6.0	—	—	3.2	—
6L16	Rectifier	6.3	0.15	16v D.C.	at 8mA	—	—	2.0	—	—	—
5764	UHF Triode	6.3	0.4	10.0	0.1	—	—	5.0	—	0.023	—
5765	UHF Triode	6.3	0.4	42.0	0.7	—	—	0	38.0	1.3	—
5766	UHF Triode	6.3	0.4	135.0	6.0	45.0	0.6	3.0	—	1.7	—
5767	UHF Triode	6.3	0.4	45.0	3.0	45.0	0.9	0	—	1.85	—
5768	Tetrode	1.25	0.01	67.5	3.5	67.5	0.8	0	1000.0	1.3	—
5968	Twin Tri.	1.25	0.12	125.0	5.5	125.0	0.9	7.5	175.0	1.6	—
5969	Twin Tet.	1.25	0.2	110.0	30.0	110.0	2.0	270 Ω	10.0	4.2	—
5970	Dio Pent.	1.25	0.16	15.0	0.1	15.0	0.025	0.8	720.0	0.19	—
5972	R.F. Pent.	1.25	0.05	15.0	0.05	15.0	0.02	0.62	2000.0	0.1	—
6147A	R.F. Pent.	1.25	0.125	180.0	11.5	—	—	—	5.5	4.5	—
6224	Out. Pent.	6.3	0.45	180.0	11.5	—	—	—	5.5	4.5	—
6269	Rectifier	26.5	0.35	16 K. P.I.V.	65 mA	D.C.	—	—	—	—	—
6418	R.F. Pent.	1.25	0.01	150.0	11.0	—	—	11	5.5	4.5	—
6419	R.F. Pent.	0.625	0.01	150.0	11.0	—	—	11	5.5	4.5	—
6526	Out. Pent.	1.25	0.125	110.0	6.5	110.0	1.15	6.0	140.0	1.9	10K
6533	Triode	6.3	0.2	120.0	0.9	100	—	—	54	1.75	—
6540	R.F. Pent.	6.3	0.2	120.0	2.5	120.0	2.6	200 Ω	340.0	5.0	—
6832	Twin Tri.	6.3	0.4	100.0	0.8	—	—	3000 Ω	25.0	1.05	—
6872	R.F. Pent.	6.3	0.2	120.0	7.75	120.0	2.7	200 Ω	—	4.1	—
6923	Diode	6.3	0.3	100v. at 0.3mA.	—	—	—	—	—	—	—
6943	R.F. Pent.	6.3	0.175	100.0	8.0	100.0	2.3	150 Ω	300.0	3.6	—
6944	R.F. Pent.	6.3	0.175	100.0	7.0	100.0	2.1	150 Ω	200.0	3.2	—
6945	R.F. Pent.	6.3	0.35	100.0	25.0	100.0	1.5	270 Ω	20.0	3.5	—
6946	Triode	6.3	0.175	100.0	9.0	—	—	270 Ω	4.3	3.8	—
6947	Twin Tri.	6.3	0.35	150.0	6.5	—	—	270 Ω	8.75	4.0	—
6948	Twin Tri.	6.3	0.35	100.0	0.8	—	—	1500 Ω	42.5	1.65	—
6977	Tuning Ind.	1.0	0.03	50.0	0.585	—	—	—	—	—	—
7001	Out. Tet.	6.3	0.45	120.0	35.0	120.0	4.0	250 Ω	15.0	4.8	—
7327	Twin Tri.	6.3	0.3	Pulse Triode	—	—	—	—	—	—	—
7432	Pentode	6.3	0.175	100	7.0	100	2.2	—	—	5.0	—
7433	Pentode	6.3	0.2	100	7.5	100	2.5	—	—	5.5	—
7434	Pentode	6.3	0.2	100	7.0	100	2.4	—	—	3.1	—
7435	Diode	6.3	0.15	460 P.I.V.	10 mA	—	—	—	—	—	—
7436	Diode	6.3	0.4	930 P.I.V.	50 mA	—	—	—	—	—	—
7437	Triode	6.3	0.15	100	8	—	—	—	4.8	4.2	20
7438	Pentode	6.3	0.175	100	3	100	2.25	—	—	2.5	—
DCF60	Converter	1.25	0.04	45.0	0.4	45.0	0.15	—	1000.0	0.2	—
DF60	Pentode	1.25	0.05	67.5	1.8	67.5	0.48	0	—	1.1	—
DF68	Pentode	1.25	0.1	90	5.7	90	1.75	1.6	350	2.3	—
DF69	Pentode	1.25	0.05	67.5	1.8	67.5	0.48	0	1000	1.1	—
DF70	Pentode	1.25	0.01	105	0.2	—	—	3.0	—	0.16	—
DL620	Out. Pent.	1.25	0.05	67.5	3.25	67.5	1.1	6.5	—	0.65	20K
DM160	Indicator	1.0	0.03	50.0	0.5	Voltage Indicator	—	—	—	—	—
DF667	Rectifier	0.65	0.013	1.5 K P.I.V.	0.15mA	D.C.	—	—	—	—	—
A766	Diode	6.3	0.15	150v. at 9mA	—	—	—	—	—	—	—
EC71	Triode	6.3	0.15	100.0	12.0	—	—	150 Ω	3.65	5.5	—
ECC70	Twin Tri.	6.3	0.3	100.0	6.5	—	—	150 Ω	6.45	5.4	—
EF730	Pentode	6.3	0.15	100.0	3.0	100.0	5.0	150 Ω	160.0	1.0	—
EF731	Pentode	6.3	0.15	100.0	7.2	100.0	2.2	120 Ω	260.0	4.5	—
EF732	Pentode	6.3	0.15	100.0	7.5	100.0	2.4	150 Ω	230.0	5.0	—
EF734	Pentode	6.3	0.15	100.0	7.5	100.0	2.4	150 Ω	260.0	5.0	—
EF742	Pentode	6.3	0.15	100.0	7.5	100.0	2.5	1.5	250	5.0	—
EL71	Out. Pent.	6.3	0.45	110.0	30.0	110.0	2.2	270 Ω	15.0	4.2	3K

SUB-MINIATURE VALVES—Contd.

Type	FILAMENT or HEATER	ANODE		SCREEN		Neg Grid Volts (R _{G2})	r _a (k Ω)	gm. (mA/V)	Anode Load Ω	Output (mW)
		Volts	Amps	Volts	I _{mA}					
02DF	Pentode	0.625	0.01	15.0	0.075	15.0	—	—	—	—
R242P	Triode	6.3	0.15	150.0	15.0	—	—	4.5	4.0	4.25
R263	Diode	6.3	0.15	460 P.I.V.	10mA	D.C.	—	—	—	—
R271	Pentode	6.3	0.2	120.0	5.2	120.0	3.5	2.0	150.0	3.2
XR6	R.F. Pent.	6.3	0.15	100.0	7.0	100.0	2.2	1.4	300.0	5.0
XR7	R.F. Pent.	6.3	0.2	100.0	7.5	100.0	2.5	2.0	250.0	5.5
XR8	Triode	6.3	0.15	100.0	8.0	—	—	2.5	4.75	4.2
XR9	Twin Tri.	6.3	0.3	100	8.5	—	—	—	4.0	5.0
OX12AB	R.F. Pent.	0.625	0.03	30	0.15	30	0.04	—	—	—
Y25	Tuning Ind.	1.4	0.025	90	0.25	Target	—	13.5	—	—

TUNING INDICATORS

Type	HEATER		TARGET		Grid Volts	BASE	Type	Ret.	Maker
	Volts	Amps	Volts	I _{mA}					
1H90	1.4	0.025	85	0.25	13.5	B9A	2	Czech	
6DA5	6.3	0.3	250	2.0	10.5	B9A	1	U.S.A.	
6DL7	6.3	0.3	250	3.0	—	B9A	1	U.S.A.	
6DU6	6.3	0.3	250	2.1	18	B9A	3	U.S.A.	
6FG6	6.3	0.27	250	0.6	22	B9A	3	U.S.A.	
6M40	6.3	0.3	250	0.5	20.0	B9A	2	U.S.A.	
12FG6	12.6	0.1	170	0.3	15	B9A	3	U.S.A.	
19DA5	19.0	0.1	200	7.0	14	B9A	2	U.S.A.	
5624	6.3	0.275	250	1.3	3	B9A	5	Czech	
EM84	6.3	0.25	250	0.6	22	B9A	3	European	
EM840	6.3	0.25	250	0.6	21	B9A	3	European	
EMH801	6.3	0.3	250	0.43	20	B9A	4	European	
PM84	4.2	0.3	170	0.3	15	B9A	3	European	
UM81	19.0	0.1	200	7.0	14	B9A	2	European	
UM84	12.6	0.1	170	0.3	15	B9A	3	U.S.A.	
Y119	16.0	0.1	250	1.6	20	B9A	2	G.E.C.	



BP2 - HANDBOOK OF RADIO, TV INDUSTRIAL AND TRANSMITTING EQUIVALENTS

Price 60p Size: 7" x 4½" (178 x 114) ISBN 085934 020 1
Author B. B. Babani 96 pages

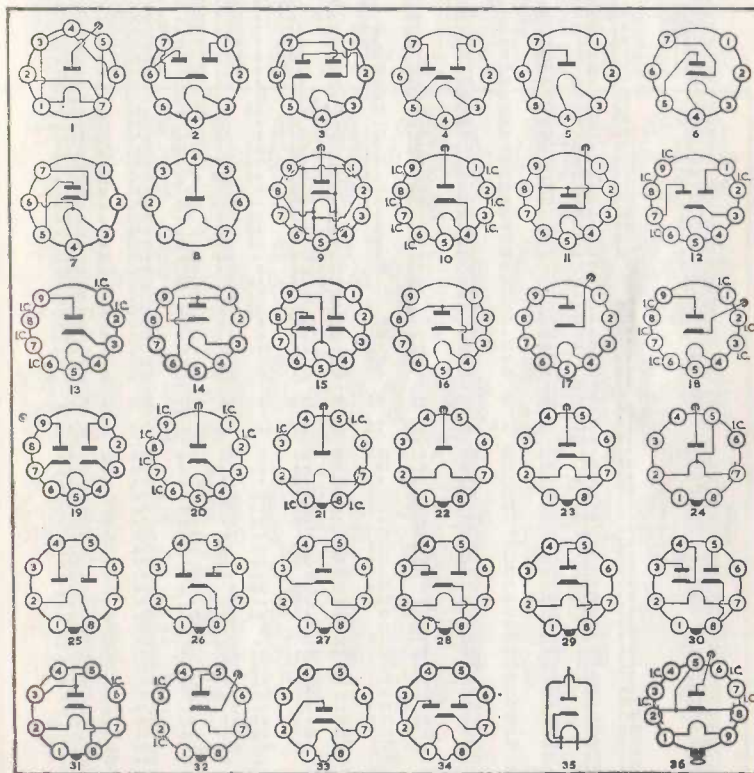
A modern, easy to use, equivalents handbook for amateur and service engineer. Every new and old valve is shown here with its equivalents. More than 18,000 valves from Gt. Britain, USA, Europe, Japan and the rest of the World are included and a complete up-to-date C.V. (Military, Naval and Air Force) List with full commercial equivalents is also provided in a most convenient form.

RECTIFIERS

Type	FILAMENT or HEATER		MAX. VOLTS PER ANODE (RMS)	MAX. I/MA	Maximum Inverse Peak Volts	Maximum Reservoir Capacitance (50 c/s)	Minimum Series Resistance Ω	BASE Type	Ref.	MAKER
	Volts	Amps								
1Y32	1.4	0.26	—	2	20000	—	—	B7G	1	Czech
6Z31	6.3	0.6	325	70	1000	—	150	B7G	2	Czech
6X2II	6.3	0.3	117	9	—	—	—	B7G	3	Soviet
6114T	6.3	0.6	—	75	1000	—	—	B7G	4	Soviet
25MK15	25.0	0.15	330	70	—	—	—	B7G	5	Japanese
35A3	35.0	0.15	—	100	700	—	—	B7G	6	U.S.A.
35C3	35.0	0.15	—	100	330	—	—	B7G	6	U.S.A.
35Y31	35.0	0.15	250	140	700	—	125	B7G	6	Czech
36AM3	18.0	0.2	—	82	365	—	—	B7G	7	U.S.A.
	36.0	0.1	—	—	—	—	—	—	—	—
50DC4	25.0	0.3	—	120	330	—	—	B7G	7	Czech
	50.0	0.15	—	—	—	—	—	—	—	—
DDR3	6.3	0.42	250	75	—	32	100	B7G	8	European
EZ900	6.3	0.6	325	70	—	—	—	B7G	2	European
1H2	1.4	0.55	—	0.5	24000	—	—	B9A	9	U.S.A.
152A	1.4	0.55	18000	0.15	22000	—	—	B9A	10	U.S.A.
2J2	2.0	0.35	—	0.2	27000	—	—	B9A	9	U.S.A.
6B3	6.3	1.2	—	150	4500	—	—	B9A	11	U.S.A.
6CA4	6.3	1.0	350	150	1000	8	270	B9A	12	U.S.A.
6N3	6.3	0.9	250	180	700	60	100	B9A	13	U.S.A.
652A	6.3	0.09	18000	0.15	22000	—	—	B9A	10	U.S.A.
6Y5	6.3	1.65	1200	220	3500	—	—	B9A	14	Czech
12B3	12.6	0.6	—	150	4400	—	—	B9A	11	U.S.A.
12DF5	6.3	0.9	—	350	1275	—	—	B9A	15	U.S.A.
	12.6	0.45	—	—	—	—	—	—	—	—
17H3	17.5	0.3	—	75	2000	—	—	B9A	16	U.S.A.
20Y4	20.0	0.3	—	140	4500	—	—	B9A	17	Czech
26AE6	26.0	0.3	—	600	—	—	—	B9A	18	U.S.A.
38A3	38.0	0.1	—	110	700	—	—	B9A	13	U.S.A.
35N3	55.0	0.1	—	180	700	—	—	B9A	13	U.S.A.
6754	6.3	1.0	450	90	—	4	10	B9A	19	U.S.A.
EY83	6.3	1.0	—	140	5000	—	—	B9A	18	European
EY88	6.3	1.2	—	600	—	—	—	B9A	18	European
H8091	6.3	1.0	625	125	2000	24	250	B9A	20	Mullard
PY83	20.0	0.3	—	175	5000	—	—	B9A	18	European
PY88	26.0	0.3	—	—	6000	—	—	B9A	18	European
TY86F	7.4	0.07	18000	0.15	22000	—	—	B9A	10	Mullard
U49	2.0	0.35	—	0.28	25000	—	—	B9A	10	G.E.C.
U119	38.0	0.1	250	110	700	100	100	B9A	13	G.E.C.
U152	19.0	0.3	250	180	700	60	100	B9A	13	Ediswan
U381	38.0	0.1	250	110	700	100	100	B9A	13	Ediswan
UU12	6.3	1.0	350	150	1000	8	270	B9A	12	Ediswan
IG3GT	1.25	0.2	—	0.5	26000	—	—	I.O.	21	U.S.A.
1J3	1.25	0.2	—	0.5	26000	—	—	I.O.	21	U.S.A.
1K3	1.25	0.2	22000	0.05	—	—	—	I.O.	21	U.S.A.
1111C	0.7	0.185	3300	1.0	—	—	—	I.O.	22	Soviet
1117C	1.25	0.2	—	2.0	30000	—	—	I.O.	22	Soviet
2112C	2.5	0.175	4500	7.5	—	—	—	I.O.	23	Soviet
3C2	1.58	0.42	—	1.1	28000	—	—	I.O.	24	U.S.A.
	3.15	0.21	—	—	—	—	—	—	—	—
5A54A	5.0	4.0	600	300	1550	—	—	I.O.	25	U.S.A.
5C4	5.0	2.0	—	125	1400	—	—	I.O.	26	U.S.A.
5R4GYB	5.0	2.0	—	250	2650	—	—	I.O.	25	U.S.A.
5Z4C	5.0	3.0	500	250	1400	—	—	I.O.	26	E. Eurpn.
5Z10	5.0	3.0	500	250	1700	—	—	I.O.	25	Czech
5113C	5.0	3.0	450	225	—	—	—	I.O.	25	Soviet
5114C	5.0	2.0	350	175	—	—	—	I.O.	26	Soviet
6DA4	6.3	1.2	—	155	4400	—	—	I.O.	27	U.S.A.
6DE4	6.3	1.6	—	175	5000	—	—	I.O.	27	U.S.A.
6UD5	6.3	0.6	400	60	—	—	—	I.O.	28	Soviet
17D4	16.8	0.45	—	155	4400	—	—	I.O.	27	U.S.A.
17DE4	17.0	0.6	—	175	5000	—	—	I.O.	27	U.S.A.
19C4	19.0	0.3	—	120	4500	—	—	I.O.	27	U.S.A.
22DE4	22.4	0.45	—	175	5000	—	—	I.O.	27	U.S.A.
25D4	25.0	0.3	—	155	4400	—	—	I.O.	27	U.S.A.
3011M	30.0	0.3	250	90	—	—	—	I.O.	29	Soviet
3016G	30.0	0.3	250	90	—	—	—	I.O.	30	Soviet
GZ37	5.0	2.8	500	350	1850	7	75	I.O.	26	Mullard
U54	5.0	2.8	500	250	—	16	50	I.O.	26	Ediswan

RECTIFIERS—Contd.

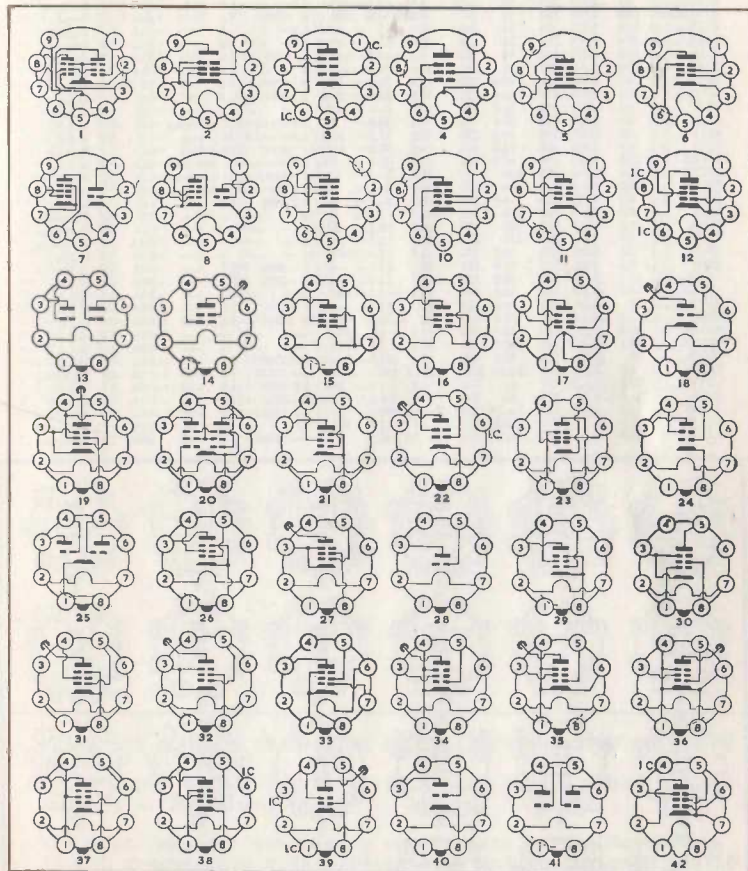
Type	FILAMENT or HEATER		MAX. VOLTS PER ANODE (RMS)	MAX. I/MA	Maximum Inverse Peak Volts	Maximum Reservoir Capacitance (50 c/s)	Minimum Series Resistance Ω	BASE Type	Ref.	MAKER
	Volts	Amps								
U291	29.0	0.3	250	275	700	100	56	I.O.	31	Ediswan
U339	19.0	0.3	—	150	4500	—	—	I.O.	32	G.E.C.
U118	40.0	0.1	250	90	—	—	—	B8A	33	G.E.C.
U718	6.3	0.6	350	90	—	—	—	B8A	34	G.E.C.
6763	Cold	—	2800	12	—	—	—	UX7	?	G.E.C.
A2272	6.3	1.6	—	100	16000	—	—	B9G	36	G.E.C.
U47	2.0	0.2	7800	0.5	20000	0.1	100K	B2A	35	G.E.C.
M8141	6.3	1.0	625	125	2000	24	250	None	—	Mullard



OUTPUT VALVES—Contd.

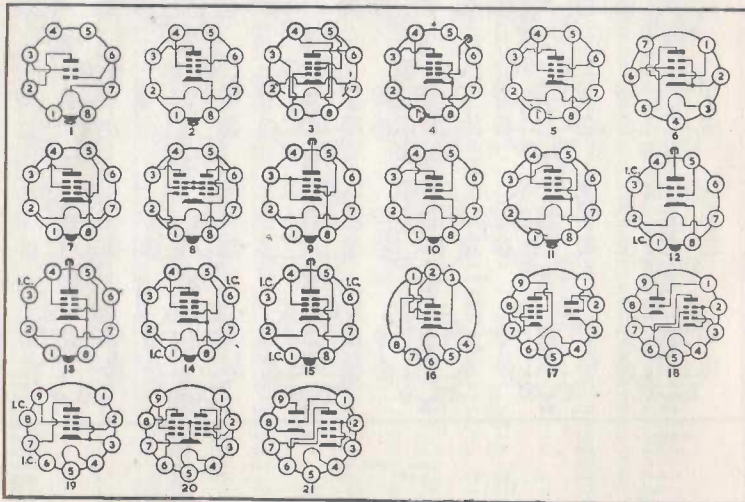
Type	FILAMENT or HEATER		ANODE		SCREEN		Neg. Grid		r _a K Ω	g _m mA/V	Anode Load Ω	Output W	Dis. %	Type	BASE Ref.	MAKER
	Volts	Amps	Volts	I/mA	Volts	I/mA	Volts	mA								
6939	6.3	0.75	200	28	150	6.0	3.5	—	—	17.4	2.5	—	—	—	—	U.S.A.
	12.6	0.375	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6973	6.3	0.45	250	46	250	3.5	15.0	7.3	4.8	—	—	—	B9A	2	U.S.A.	
7061	13.5	0.21	200	38	200	7.5	10	60	4.2	5	3.0	7	B9A	2	U.S.A.	
7189	6.3	0.76	250	48	250	5.5	7.3	40	11.3	—	4.5	5.7	B9A	12	U.S.A.	
7227	27.5	0.175	27.5	88	27.5	1.5	2.5	8.5	5	—	—	—	B9A	12	U.S.A.	
7320	6.3	0.76	250	48	250	5.5	7.3	38.0	11.3	—	4.5	5.7	B9A	12	U.S.A.	
AL860	2.4	0.56	200	35	150	6.0	7.0	—	—	—	6.2	—	B9A	4	E. Eurpn.	
	4.8	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECL83	6.3	0.6	200	27	200	4.4	13	65	6.0	—	7.5	2.5	B9A	7	European	
ECL84	6.3	0.7	170	18	170	3.1	2.1	100	11	—	—	—	B9A	8	European	
EL 183	6.3	0.6	150	40	220	7.0	2.1	—	26	—	—	—	B9A	5	French	
EL803S	6.3	0.64	200	32	200	4.7	110.0	100	10	—	—	—	B9A	6	European	
EL861	6.3	0.375	210	20	210	5.3	—	300	11	—	4.5	—	B9A	9	European	
EL863	6.3	0.72	250	36	250	5.0	5.5	100	10.5	—	9.0	—	B9A	10	European	
IF860	20	0.095	170	10	170	2.5	—	400	7.5	—	1.7	—	B9A	11	European	
IL861	20	0.12	210	15	210	4.0	—	400	10.0	—	4.5	—	B9A	9	European	
LN319	13	0.3	170	28	180	6.5	—	6.0	—	—	6.0	—	B9A	7	G.E.C.	
N119	45.0	0.1	170	70	170	22	12.5	23	10	—	7.0	5.5	10	B9A	12	G.E.C.
N369	12.6	0.3	170	31	180	7.3	10.3	—	8.3	5.0	2.25	—	B9A	12	G.E.C.	
PCL84	15.0	0.3	170	18	170	3.1	2.1	100	11	—	—	—	B9A	8	European	
PL183	12.6	0.3	150	40	220	7.0	2.1	—	25	—	—	—	B9A	5	French	
1H3C	1.2	0.12	120	7.3	—	1.3	5.5	—	0.8	7.0	0.4	—	B9A	13	Soviet	
2K1M	2.0	0.32	160	2.0	80	1.3	2.8	—	3.0	1.7	—	—	B9A	14	Soviet	
2I11M	2.0	0.18	120	0.8	120	0.8	2.0	—	180	1.8	0.2	—	B9A	15	Soviet	
2I12M	2.0	0.32	160	10.0	120	0.8	6.0	—	50	2.0	—	—	I.O.	15	Soviet	
2I19M	2.0	0.1	250	35.0	150	1.5	—	—	40	2.5	2.5	0.0	I.O.	16	Soviet	
4I11I	2.1	0.65	120	25.0	120	4.0	6.4	—	6.0	—	1.0	—	I.O.	17	Soviet	
	4.2	0.325	—	—	—	—	—	—	—	—	—	—	—	—	—	U.S.A.
6B14	6.3	0.45	25K	1	—	—	—	8.2M	0.18	Col. focus triode	—	—	I.O.	18	U.S.A.	
6DQ5	6.3	2.3	175	110	125	5.0	25	5.5	10.5	—	—	—	I.O.	19	U.S.A.	
6D17	6.3	1.2	250	50	250	3.0	12.5	28	6.0	—	—	—	I.O.	20	U.S.A.	
6E6F	6.3	0.9	250	50	250	2.0	18.	—	5.0	—	—	—	I.O.	21	U.S.A.	
6E2S	6.3	0.8	250	43	250	3.5	20	50	4.1	Vert. Defl.	—	—	I.O.	21	U.S.A.	
6FH6	6.3	1.2	250	75	150	17	22.5	12	6.0	Hor. deflection	—	—	I.O.	22	U.S.A.	
6L10	6.3	0.65	250	30	250	1.5	—	150	3	—	—	—	I.O.	23	U.S.A.	
6L16	6.3	0.6	250	40	250	8.5	—	—	5.2	4.5	—	—	I.O.	24	Ediswan	
6V6GTA	6.3	0.45	250	47	250	7.0	12.5	52	4.1	5.0	4.5	8	I.O.	21	U.S.A.	
6H7C	6.3	0.8	300	35	—	—	0	1.4	3.2	8.0	4.2	—	I.O.	25	Soviet	
6I13M	6.3	1.0	300	72.0	250	7.0	14	25	6.0	3.0	7.0	—	I.O.	26	Soviet	
6I16C	6.3	0.45	250	45.0	250	4.5	12.5	52	4.5	5.0	3.6	—	I.O.	26	Soviet	
6I17C	6.3	0.9	250	72.0	250	8.0	14.0	30	5.9	—	6.0	—	I.O.	27	Soviet	
6I18C	6.3	1.0	250	60.0	—	—	45.0	0.8	5.25	2.5	3.5	—	I.O.	28	Soviet	
6D6C	6.3	0.7	250	34.0	250	7.0	6.5	78	2.5	7.0	3.2	—	I.O.	26	Soviet	
7EY6	7.2	0.6	250	44	250	3.0	17.5	60	4.4	Vert. deflection	—	—	I.O.	29	U.S.A.	
9EY6	9.4	0.6	250	50	250	2.0	18.	—	5.0	—	—	—	I.O.	21	U.S.A.	
12E6F	12.6	0.45	250	50	250	2.0	18.	—	5.0	—	—	—	I.O.	21	U.S.A.	
12E6G	12.6	0.18	200	50	110	2.2	9.5	28	2.0	—	—	—	I.O.	21	U.S.A.	
15A6C	15.0	0.3	250	34	250	3.0	16.5	80	2.5	10.0	3.2	—	I.O.	26	Soviet	
17AV5GA	16.8	0.45	250	55	150	2.1	22.5	22.5	5.8	Line timebase amp.	—	—	I.O.	30	U.S.A.	
17BQ6	16.8	0.45	250	55	150	2.1	22.5	22.5	5.8	Line timebase amp.	—	—	I.O.	22	U.S.A.	
17DQ6/A	16.8	0.45	465	83	140	12.3	28	—	—	—	—	—	I.O.	31	U.S.A.	
17L6	16.8	0.45	200	55	110	7.0	8	30	9.5	3.0	4.3	10	I.O.	21	U.S.A.	
19A5	18.5	—	200	40	125	1.1	17	27	4.8	—	—	—	I.O.	30	U.S.A.	
25DQ6A	25.0	0.3	465	83	140	12.3	28	—	—	—	—	—	I.O.	31	U.S.A.	
25E6C	25.0	0.6	135	70	135	4.5	22.5	4.7	7.5	—	—	—	I.O.	32	U.S.A.	
25I11C	25.0	0.3	160	38.0	135	4.0	20.0	40	2.5	6.0	3.0	—	I.O.	21	Soviet	
30I11C	30.0	0.3	110	70.0	110	12.0	7.5	9.0	10.0	1.8	0.5	—	I.O.	21	Soviet	
35CD6GA	35.0	0.45	175	75	175	5.5	—	—	7.2	7.7	—	—	I.O.	32	U.S.A.	
6146	6.3	1.25	200	100	200	—	29.5	—	7.0	—	—	—	I.O.	35	U.S.A.	
6159	26.5	0.3	200	100	200	—	29.5	—	7.0	—	—	—	I.O.	35	U.S.A.	
6384	6.3	1.2	250	77	250	3.5	22.5	—	5.4	—	—	—	I.O.	33	U.S.A.	
6883	12.6	0.625	200	100	200	—	29.5	—	7.0	—	—	—	I.O.	34	U.S.A.	
6893	12.6	0.4	600	66	185	10	—	—	—	27	—	—	I.O.	36	U.S.A.	
7027	3.3	0.9	450	194	350	19.2	30	—	—	4.50*	—	1.5	I.O.	37	U.S.A.	
EL131	6.3	1.5	200	250	15	12	—	11.0	15	3.5	—	—	I.O.	38	European	
EL360	6.3	1.27	100	100	100	7	7.7	53	14	—	—	—	I.O.	31	European	
KT88	6.3	1.8	250	140	250	—	—	12	11	6	50*	2	I.O.	26	G.E.C.	
N308	38	0.2	400	10	250	4	—	—	—	—	—	—	I.O.	39	G.E.C.	
R120	6.3	1.45	250	60	—	—	35	0.84	6.4	2.5	3.5	10	I.O.	40	French	
CB244	2.0	0.18	120	0.7	2.0	180	1.8	—	0.13	—	—	—	I.O.	14	Soviet	
CB246	2.0	0.32	160	7.0	80	1.5	2.5	300	1.8	—	0.5	0.5	I.O.	14	Soviet	
CB258	2.0	0.32	160	5.5	70	1.0	3.0	150	2.0	—	0.2	—	I.O.	15	Soviet	
CO243	2.0	0.24	120	4.0	—	—	0	18.0	1.8	—	1.0	—	I.O.	41	Soviet	
N118	40	0.1	150	30	150	5.8	6.3	—	7.5	5.8	2.6	14	B8A	42	G.E.C.	

OUTPUT VALVES—Contd.



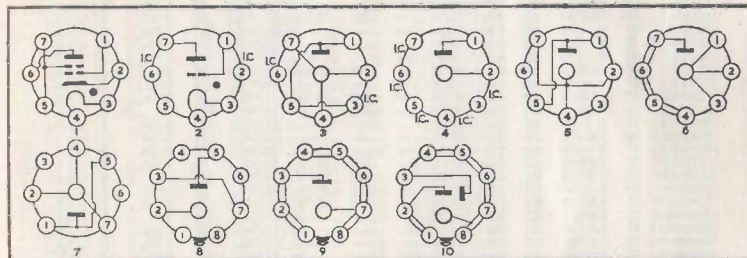
OUTPUT VALVES—Contd.

Type	FILAMENT OF HEATER		ANODE		SCREEN		Neg. Grid Volts	r _s KΩ	g _m mA/V	Anode Load Ω	Output W	Dis. %	Type	BASE Ref.	MAKER
	Volts	Amps	Volts	mA	Volts	mA									
DL29	1.4	0.22	90	9.5	90	1.6	4.5	—	—	—	—	—	B9C	2	European
EL30	2.8	0.11	—	—	—	—	—	—	—	—	—	—	B8G	2	European
PTT208P	18.0	0.14	200	18	200	3.6	4.5	140	6	15	1.1	6	F8A	3	French
R117	10.0	0.7	200	35	200	5.0	5	43	8.5	7.5	2.0	6	F8A	4	French
R123	18.0	0.4	200	35	200	5.0	5	43	8.5	7.5	2.0	6	F8A	4	French
R134	18.0	0.225	200	18	200	3.6	4.5	160	6	15	0.8	6	F8A	5	French
R147	18.0	0.14	200	18	200	3.6	4.5	160	6	15	1.1	6	F8A	3	French
6095	6.3	0.36	250	47.0	250	7.0	12.5	52.0	4.1	5000	4.5	8	B7G	6	U.S.A.
6CN5	6.3	0.9	350	66.0	250	7.0	18.0	33.0	5.2	4200	10.8	15	I.O.	7	U.S.A.
6D27	6.3	?	440	35.0	300	12.0	—	—	—	—	—	—	I.O.	9	U.S.A.
6EX6	6.3	2.25	175	67.0	175	3.3	30.0	8.5	7.7	Horizontal def. amp	—	I.O.	9	U.S.A.	
6EY6	6.3	0.68	250	44.0	250	3.0	17.5	60.0	4.4	Vertical def. amp	—	I.O.	10	U.S.A.	
7D11	6.3	1.8	425	35.0	425	6.0	50.0	12	11	6000 50.0 P.P. 2	—	I.O.	11	Brimar	
21EX6	21.5	0.6	175	67.0	175	3.3	30.0	8.5	7.7	Horizontal def. amp	—	I.O.	9	U.S.A.	
25GF6	25.0	0.3	170	100	170	8.8	21.0	5.5	11	Horizontal def. amp	—	I.O.	12	U.S.A.	
30P19	25.0	0.3	170	100	170	8.8	21.0	5.5	11	Horizontal def. amp	—	I.O.	13	Ediswan	
7408	6.3	0.45	250	47.0	250	7.0	12.5	4.1	4.5	5000 8.0	—	I.O.	7	U.S.A.	
E235L	6.3	1.2	100	100	100	7.0	8.2	5	14	—	—	I.O.	14	European	
E236L	6.3	1.2	100	100	100	7.0	8.2	5	14	—	—	I.O.	15	European	
F2a11	6.3	2.0	250	250	250	14.5	6.5	23	18	—	—	G8A	16	European	
6DQ8	6.3	0.71	170	18.0	170	3.1	2.1	100	11	—	—	—	—	—	
6FY8	6.3	1.2	125	50.0	125	10	13.5	—	7	2000 2.7	—	—	—	—	
12FY8	12.6	0.6	125	50.0	125	10	13.5	—	7	2000 2.7	—	—	—	—	
15DX8	15.0	0.3	170	18.0	170	3.1	2.1	100	—	—	—	—	—	—	
15FY8	15.0	0.3	125	50.0	125	10	13.5	—	7	2000 2.7	—	—	—	—	
45BQ5	45.0	0.1	170	70.0	170	2.2	12.5	—	10	7000 5.6	—	—	—	—	
45DQ8	45.0	0.1	170	18.0	170	3.1	2.1	100	—	—	—	—	—	—	
45DX8	45.0	0.1	170	18.0	170	3.1	2.1	100	—	—	—	—	—	—	
50FY8	50.0	0.15	125	50.0	125	10	13.5	—	7	2000 2.7	—	—	—	—	
ELL80	6.3	0.55	250	2x 24	250	2x 4.5	160Ω	—	—	10000 3.0	—	—	—	—	
LN119	48.0	0.1	170	41	170	7.5	4.5	40.0	5.8	4000 3.5	10	—	—	—	
N379	16.0	0.3	200	34	200	3.8	6.0	35.0	10	7000 4.4	10	—	—	—	
PLL80	12.0	0.3	250	2x 24	250	2x 4.5	160Ω	—	—	10000 3.0	10	—	—	—	
UCL84	45.0	0.1	170	18.0	170	3.1	2.1	100	—	—	—	—	—	—	
ULL80	25.0	0.1	250	2x 24	250	2x 4.5	160Ω	—	—	10000 3.0	10	—	—	—	



REGULATORS and THYRATRONS

Type	HEATER Used as	SUPPLY Volts	CURRENT Amps	STRI-KING VOLTS	VOLT-AGE DROP Min.	TUBE CURRENT m/A	Max. Anode Volts	Max. Peak Current Amps	Con. Ratio	BASE Type	Ref.	Maker
85A3	V.R.	—	—	85	115	1	4	—	—	B7G	3	Mullard
6354	V.R.	—	—	143.7	180	5	15	—	—	B7G	4	U.S.A.
EN92	Relay	6.3	0.15	—	—	—	—	500	100	250	—	European
EN93	Relay	6.3	0.25	350	Anode Volts	50v. Grid	25mA	—	—	B7G	2	Mullard
M8098	V.R.	—	—	85	125	1	10	—	—	B7G	3	Mullard
M8163	V.R.	—	—	143-147	180	5	15	—	—	B7G	4	Mullard
M8204	Relay	6.3	0.6	650V peak	100mA average	—	—	—	—	B7G	1	Mullard
M8223	V.R.	—	—	150	185	5	30	—	—	B7G	5	Mullard
M8224	V.R.	—	—	108	133	5	30	—	—	B7G	5	Mullard
OC2	V.R.	—	—	75	125	5	20	—	—	B7G	7	U.S.A.
QS75/20	V.R.	—	—	75	110	2	20	—	—	B7G	6	E.E.
QS1200	V.R.	—	—	150	180	5	15	—	—	B7G	4	E.E.
QS1204	V.R.	—	—	108	133	5	25	—	—	B7G	7	E.E.
QS1207	V.R.	—	—	150	185	5	30	—	—	B7G	7	E.E.
QS1208	V.R.	—	—	108	133	5	30	—	—	B7G	7	E.E.
QS1209	V.R.	—	—	84	125	1	8	—	—	B7G	7	E.E.
QS1210	V.R.	—	—	150	165	5	30	—	—	B7G	7	E.E.
QS1211	V.R.	—	—	108	133	5	30	—	—	B7G	7	E.E.
QS1212	V.R.	—	—	85	115	1	10	—	—	B7G	7	E.E.
QS1205	V.R.	—	—	75	105	5	40	—	—	I.O.	8	E.E.
QS1206	V.R.	—	—	108	133	5	40	—	—	I.O.	8	E.E.
QS75/60	V.R.	—	—	75	117	5	60	—	—	B8G	9	E.E.
QS108/45	V.R.	—	—	108	120	5	45	—	—	BBG	10	E.E.
M8132	V.R.	—	—	108	133	5	30	—	—	None	—	Mullard
M8133	V.R.	—	—	150	185	5	30	—	—	None	—	Mullard
M8142	V.R.	—	—	85	125	1	10	—	—	None	—	Mullard
M8178	Relay	6.3	0.6	650V peak	100mA average	—	—	—	—	None	—	Mullard
M8190	V.R.	—	—	85	115	1	4	—	—	None	—	Mullard
M8207	V.R.	—	—	90	115	1	40	—	—	None	—	Mullard
M8208	V.R.	—	—	143-147	180	5	15	—	—	None	—	Mullard
QS1201	V.R.	—	—	75	110	2	15	—	—	None	—	E.E.
QS1202	V.R.	—	—	108	133	2	15	—	—	None	—	E.E.
QS1203	V.R.	—	—	150	180	2	15	—	—	None	—	E.E.
QS1213	V.R.	—	—	85	115	1	10	—	—	None	—	E.E.



BPI - 1ST BOOK OF TRANSISTOR EQUIVALENTS AND SUBSTITUTES

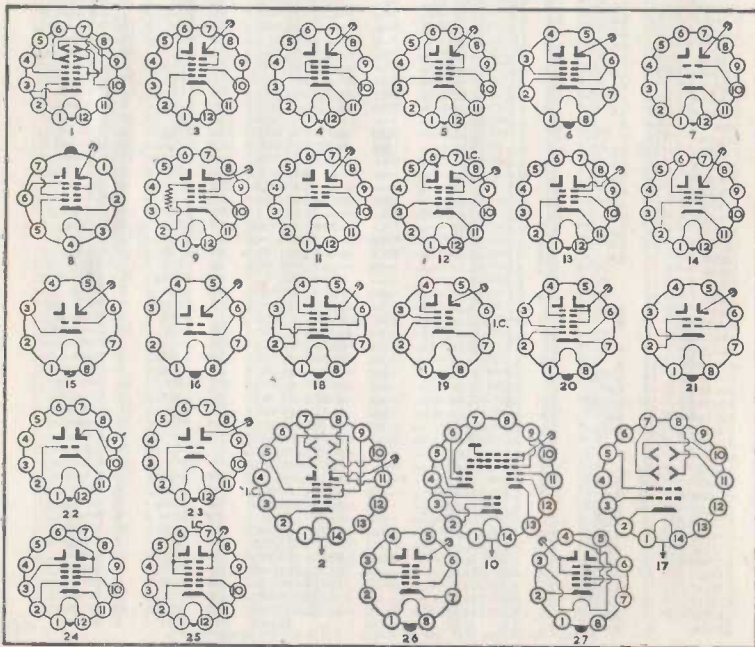
Price 40p Size: 7" x 4½" (178 x 114) ISBN 0 85934 000 7
Author: B. B. Babani 80 pages

The most complete transistor equivalents guide. More than 25,000 transistors with alternatives and equivalents are included. Covers transistors made in Gt. Britain, USA, Japan, Germany, France, Europe, Hone Kong, and includes types produced by more than 120 different manufacturers. Sales of this book exceed 650,000 copies throughout the world since it was first published in 1971.

TELEVISION C.R. Tubes—Contd.

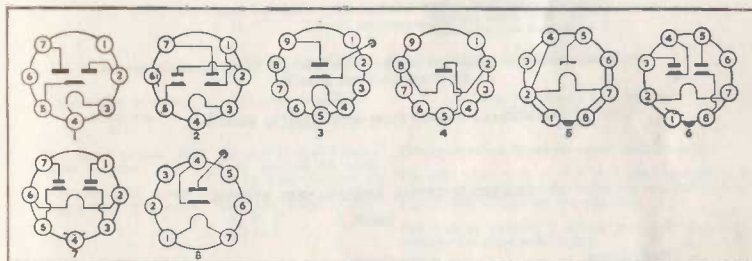
Type	Dia. in In.	Remarks	HEATER Volts	Amps	2nd or FINAL ANODE Volts	Focus Anode	ACC	e off	Focus A/T or Def. Method	Def. Angle	BASE Type	Ref.	Maker
CZ13M	21	RAG	6.3	0.3	18.0K	—	300	33-77	ES/MG	90°	B12A	12	Brimar
CZ17M	21	RA*	12.6	0.3	18.0K	—	300	30-72	MG/MG	90°	B12A	7	Brimar
CZ24M	24	RA*	6.3	0.3	16.0K	—	300	40-60	M/JM	90°	B12A	13	Brimar
CME141	14	RA	12.6	0.3	14.0K	—	300	51	ES/MG	70°	B12A	3	Ediswan
CME1402	14	RG A*	12.6	0.3	14.0K	—	300	30-72	ES/MG	90°	B12A	3	Mazda
CME1702	17	RA	12.6	0.3	15.0K	—	300	30-72	ES/MG	90°	B12A	12	Ediswan
CME1703	17	RA	12.6	0.3	16.0K	—	400	30-70	ES/MG	110	B8H	6	Ediswan
CME2101	21	RA	12.6	0.3	16.0K	—	400	30-70	ES/MG	110	B8H	6	Ediswan
CRM172	17	RG A	12.6	0.3	14.0K	—	300	51	ES/MG	90	B12A	7	Mazda
CRM173	17	RG A*	12.6	0.3	16.0K	—	300	30-72	MG/MG	90	B12A	7	Mullard
MP17-20	5		6.3	0.3	14.0K	—	300	40-86	ES/MG	53	B12A	13	European
MW13-35	5		6.3	0.3	7.0K	—	300	30-70	MG/MG	53	I.O.	?	Mullard
MW17-69	6.5	A	6.3	0.3	14.0K	—	300	40-85	MG/MG	70	B12A	13	European
MW22-22	6		6.3	0.3	9.0K	—	300	30-70	MG/MG	64	B12A	7	Mullard
MW36-67	14	R	6.3	0.3	14.0K	—	300	30-70	MG/MG	65	B12A	7	Mullard
MW53-22	21	RA*	6.3	0.3	16.0K	—	300	33-77	MG/MG	70	B12A	13	French
JLK715	6		2.5	2.1	3.5K	—	—	—	MG/MG	I.O.	15	Soviet	
JLK715A	6		6.3	0.47	3.8K	—	—	—	MG/MG	I.O.	15	Soviet	
JLK726	6		2.5	2.1	3.5K	—	—	—	MG/MG	I.O.	15	Soviet	
23JK15	6		6.3	0.47	3.5K	—	—	—	MG/MG	I.O.	15	Soviet	
JLK740	7		6.3	0.47	2.8K	—	—	—	ES/ES	46.5	B14A	17	Soviet
23JK1B	9		6.3	0.47	6.0K	—	—	—	/MG	46.5	I.O.	16	Soviet
31JK1B	12		6.3	0.47	8.0K	—	—	—	/MG	—	I.O.	16	Soviet
40JK1B	15		6.3	0.47	10.0K	—	—	—	/MG	—	I.O.	15	Soviet

A = Aluminated. G = Tinted. R = Rectangular Tube. * = Single Ion Trap.



DIODES

Type	FILAMENT or HEATER Volts	Input Amps	Input Volts (RMS)	Max. I/mA	BASE Type	Ref.	Maker
2EN5	2.1	0.45	—	—	B7G	1	U.S.A.
6B31	6.3	0.3	150	9	B7G	7	Czech
6097	6.3	0.3	117	9.0	B7G	2	U.S.A.
6887	6.3	0.2	360	10.0	B7G	2	U.S.A.
6919	6.3	0.2	165	3.0	B7G	2	U.S.A.
7055	13.5	0.155	350	10.0	B7G	2	U.S.A.
AA91E	6.3	0.3	117	9	B7G	2	European
E91AA	6.3	0.3	117	9.0	B7G	2	E. Eurpn.
E9A62	6.3	0.125	100	0.1	B7G	8	E. Eurpn.
EA9015	6.3	0.3	117	9.0	B7G	2	E. Eurpn.
M8212	6.3	0.3	117	9.0	B7G	2	Mullard
6AF3	6.3	1.2	4.5K P.I.V.	185	B9A	3	U.S.A.
12AF3	12.6	0.6	4.5K P.I.V.	185	B9A	3	U.S.A.
R290	1.85	2.7	100	15	B9A	4	French
6X6	6.3	0.3	100	4.0	I.O.	6	Soviet
29C1	4.0	0.8	100	3	I.O.	5	Ediswan
R128	18.0	0.2	200	5	I.O.	6	French
M8184	6.3	0.3	150	9	None	—	Mullard



202 - HANDBOOK OF INTEGRATED CIRCUITS (IC's) EQUIVALENTS AND SUBSTITUTES

Price: 75p 128 pages ISBN 0 900162 35 X
 Author: B.B. Babani Size 7" x 4½" (178 x 114)

The First and most complete integrated circuits (IC's) equivalents and substitutes guide ever published containing full interchangeability data on more than 9,500 integrated circuits with every possible alternative and equivalent clearly shown. Comprehensively covers all digital and linear IC's of every type, including those manufactured in Gt. Britain, USA, Japan, Germany, France, Czechoslovakia, the rest of Europe and all other manufacturing sources. The products of the worlds leading makers are listed in this unique book. All available commercial industrial service and military types are extensively covered.

RADIO RECEIVING VALVE DESIGNATION SYSTEMS

EUROPEAN Example EABC80

First Letter (E) Filament or Heater Voltage, Heater Current.	Second or following Letters (ABC) Type Classification	First Figure (8) Valve Holder and Base Type	Second or following figures (6) Design
A—4 V	A—RF single diode	1. Various, including Y8A special German type	Indicates a particular design and usage.
C—200 mA	B—RF double diode	2. Local B&G	
D—up to 1.4 V	C—triode (except output and gas-filled triodes)	3. Octal	
E—6.3 V	D—output triode	4. Rimlock B8A	
G—5 V	E—tetrode (except output tetrode)	5. 9 pin Local B9G and special bases.	
H—150 mA	F—pentode (except output pentode)	6. Sub miniature or wired-in.	
K—2 V battery	H—hexode or heptode	7. Sub miniature or wired-in.	
O—no filament	K—heptode or octode	8. Noval B9A	
I—300 mA	L—output tetrode or pentode	9. Miniature B7G.	
U—100 mA	M—tuning indicator		
X—600 mA	N—gas-filled triode or tetrode		
	P—tube with secondary emission (used as third letter only)		
	Q—enode		
	T—miscellaneous		
	X—full-wave gas-filled mains rectifier		
	Y—half-wave mains rectifier		
	Z—full-wave mains rectifier		

Designation system for special and Industrial type tubes: the figures are placed between the letters (e.g. E90F, E181CC)

EABC80=6.3 V heater Triple diode Triode on Noval base

AMERICAN RETMA DESIGNATION SYSTEM

12AU7

Figure Group (12) Filament or Heater Voltage	Letter Group (AU) Letter(s) indicating the serial order of assignment of the designation.	2nd Figure Group (with additional letters) (7) The number of useful elements.
0—cold cathode		
1—between 0.1 and 2.1	The letters U, V, W, X, Y, Z commonly are used to indicate rectifiers.	Notes: In metal tubes the shell counts as one element. Shielding by or in base does not count as an element.
2—between 2.1 and 2.9		Additional letters: G—glass bulb ST-12 size to ST-16 GT—glass bulb T-9 size G/G—glass bulb T-9 size, interchangeable with G and GT types X—low loss base for HF use (ceramic) Y—low loss base for HF use (phenolic)
3—between 3.0 and 3.9	S—as first letter indicates single-ended tubes, related to grid-cap types.	
4—between 4 and 5		
5—between 5 and 5.9	Combinations like AB, AC, AD, and AE were used when all the single letters were used up.	
6—between 6 and 6.9		
7—between 7 and 7.9 etc.	S—as second letter indicates single-ended construction.	Letters A, B, C as additional letter indicating a minor change.
Notes: When heater or filament is centre tapped for use on two voltages, the higher voltage number is used.	Note: P as second letter is destined for designation of cathode-ray tubes, e.g., 5KP4.	
On cathode-ray tubes this first number refers to the screen diameter in inches.	Note: Whenever possible, the 12 V equivalent of a 6 V tube has kept the same letters, e.g. 6SK7GT and 12SK7GT are similar except for heater rating.	

12AU7=12.6/6.3 heater Twin Triode

DESIGNATION SYSTEM FOR CATHODE-RAY TUBES

EUROPEAN Example MW43-64

First Letter (M)	Second Letter (W) Screen Properties	Figures (43-64) First group of figures for round screens: screen diameter in cm. For rectangular screens: screen diagonal in cm. The second group of figures is a serial number indicating a particular design.
D = Deflection and Focusing A = Magnetic deflection, electrostatic focusing.	B = Blue fluorescence and phosphorescence, short persistence.	
D = Electrostatic deflection and focusing.	C = Blue violet fluorescence and phosphorescence, very short persistence.	
M = Magnetic deflection and focusing.	F = Orange fluorescence and phosphorescence, very long persistence.	
	G = Green fluorescence and phosphorescence, medium persistence.	
	L = Orange fluorescence and phosphorescence, long persistence.	
	N = Blue-green fluorescence and green phosphorescence, long persistence.	
	P = Blue fluorescence and greenish-yellow phosphorescence, very long persistence.	
	R = Greenish-yellow fluorescence, and yellow phosphorescence, long persistence.	
	W = Screen for picture tubes, white screen colour, short persistence.	

MW43-64=Magnetic deflection and focusing. White screen short persistence picture tube 43 cms. diagonal screen

AMERICAN RETMA DESIGNATION SYSTEM

21AMP4A

First Figure or Group of Figures (21)	Letter(s) Preceding Letter P (AM)	Letter P Followed by a Number (One or Two Figures) (P4A)
For round screens: diameter in inches.	Letter(s) is (are) a serial code applying to tubes of the same diameter of diagonal and indicates particular design of tube. (A, B, C, ..., Z, AB, AC, etc.)	This combination designates screen characteristics.
For rectangular screens: screen diagonal in inches.		The suffix letter (A, B, C, or F, etc.), when used, indicates a later and modified version which can be substituted for any previous version but not vice versa.
		The letter W indicates a military type and, when used, precedes any other suffix letters.

TRANSMITTING TUBES DESIGNATION SYSTEM

EUROPEAN QQE03-20A

First Letter (QQ)	Second Letter (E) Third Letter (for Dual Systems)	Figures (03-20A) First figure or group of figures.
D = Rectifying tube (including grid controlled tubes)	A = Directly-heated, tungsten filament	Rectifying tubes: approximately D.C. output voltage in KV's in a three-phase half-wave rectifying circuit.
M = Triode (AF amplifying tube or modulator)	B = Directly-heated, thoriated tungsten filament	Transmitting tubes: approximately maximum anode voltage in kilovolts
P = Pentode	C = Directly-heated, oxide-coated filament	
Q = Tetrode	E = Indirectly-heated, oxide-coated filament	
QQ = Double Tetrode		
T = Triode (R.F., A.F. or oscillator tube)	Third Letter	Second Group of Figures
	G = Mercury-vapour filling	Rectifying tubes: approximately D.C. output power in watts or kilowatts per tube in a three-phase half-wave rectifying circuit.
	I = Forced-air cooling	R.F. tubes: approximate output power in watts or kilowatts in class C telegraphy.
	W = Water cooling	Modulators: approximate anode dissipation in watts or kilowatts.
	X = Xenon filling	Additional letter(s): base type.
	The tube is radiation-cooled, if cooling is not indicated in the type number	

AMERICAN RETMA

No system yet adopted

NUMERICAL/ALPHABETICAL INDEX

Valve Type	Page No.	Valve Type	Page No.	Valve Type	Page No.	Valve Type	Page No.
1AF33	10	4CM4	18	6BN4A	18	6DW5	30
1AF34	10	4CS6	10	6BN8	18	6DX8	18
1AM4	10	4CY5	10	6B54	18		
1AOS	17	4DE6	10	6B8U	32	6DY5	32
1ARS	10	4DK6	10	6BWB	22	6D77	32
1AS5	10	4DT6	10	6C2C	22	6DZ7	34
1C91	26	4E58	18	6C4C	32	6DZ8	38
1DN5	10	4EW6	10	6C12	17		
1EDR1	26	4MP12	30	6C16	16	6EA5	24
1ER11	26	5A/170K	12	24	6EA7	24	
1F33	10	5A/172G	26	6C31	18	6EA9	18
1F34	10	5A/173G	26	6C4A	28		
1G3GT	28	5A/174G	26	6CB6A	10	6EB8	12
1H2	28	5A/175G	26	6CC10	22		
1H3C	32	5A/180M	36	6CC31	18	6EC7	19
1H33	17	5ABP4	36	6CC40	18	6EF6	32
1H34	17	5A54A	28	6CC41	18	6EH5	30
1H35	17	5BH4P4	36	6CC42	18	6EH8	19
1J3	28	5BQ7A	18	6CF5	10	6EM5	10
1K3	28	5B58	18	6CG8A	12	6ER5	24
1L33	30	5BW8	12		18	6E56	16
1L34	30	5DX7	18	6CK4	22	6E58	19
1L91	26	5BZ7	18	6CL8A	10		
1LB7	14	5CG4	28		18	6ET6	10
1M90	27	5CL8A	12	6CM4	18	6EV5	16
1N3	26	5CN6	30	6CN5	34	6EV6	34
1S5A	28	5C9B	18	6CQ8	12	6EX6	34
1Y32	28	5C9R	18	6CQ8A	12	6E28	19
2AIM (Sov.)	17	5CR	18	6CR4	18	6EY6	34
2BN4A	10	5CR8	12	6CR5	30	6F10	14
2CY5	10	5CZ5	18	6CR8A	12	6F17	10
2EA5	10	5D48	12	6CS8	18	6F19	12
2EAS	39	5D48	12	6CS8	18	6F20	12
2EV5	16	5E8	18	6CUB	12	6F21	10
2FV6	16	5E8	18		12	6F22	12
2HIM	22		18		18		16
2J2	28	5EH8	12	6CW5	30	6F23	12
2L2	26		18	6CW7	30	6F24	24
2L25	26	5FV8	18	6CX8	30		16
25/141G	26		24		12		26
3AB4	24	5GH8	16	6CY5	18	6F31	10
3AFA4	18		26	6CY7	10	6F32	10
3BN4	18	5R4GYB	28	6CZ5	30	6F35	10
3BN4A	18	5Z4C	28	6DA4	28	6F36	10
3C2	10	5Z10	28	6DA5	27	6F40	12
3CF5	10	6A10C (Sov.)	17	6DA7	17	6FD12	12
3CY5	10	6AF3	39	6DB5	30	6FG6	27
3DK6	10	6AMB8	12	6DC8	12	6FH6	32
3EA5	10	6AN8A	12	6DEA	28	6FM8	24
3ER5	24	6DE7	18	6DE7	18	6FV6	16
3EV5	16	6AQ5A	30	6DG7	16	6FV8	16
3L31	30	6AQ6	18	6D18	18		24
3L35	30	6AT8A	12	6DK6	10	6FW8	24
3RP4	36		18	6DL5	30	6FY8	24
3W4	30	6AU6A	10	6DL7	27		34
3Z4	30	6AUBA	12	6DN7	22	6GA8	34
40A6	10	6B3	10	6DO5	18	6GH8	16
43CS	10	6B31	39	6DQ8	32		24
4BE6	17	6BC32	37		34	6HI	10
4BN4	18	6BD7A	18	6DR7	18	6HTC	32
4BN6	18	6BEA	10	6DR8	12	6H8C	23
4BU8	10	6DS	12	6DS5	30	6H9C	23
4BZ6	10	6BK7B	18	6DT5	17	6H31	17
4CB6	10	6BM8	18	6DT8	18	6IA	10
4CE5	10		30	6DT8	18	6LI0	10
				6DU6	27	6LI2	32

Valve Type	Page No.	Valve Type	Page No.	Valve Type	Page No.	Valve Type	Page No.
6L13	19	9X8	12	12EC8	12	17BT4	36
6L16	24		20	12ED5	36	17BUP4	36
6L31	30	10ABP4	36	12EF6	36	17BVP4	36
6L43	30	10ABP4A	36	12EG6	10	17BWP4	36
6L50	30	10ABP4C	36	12EG6	10	17BP4	36
6LD12	19	10ADP4	36	12EH5	30	17BZ4	36
6LD13	19	10AEP4	36	12EK6	10	17C5	36
6M40	27	10C8	12	12EL6	18	17C8	12
6N3	28		20	12EM6	12	17CA5	10
6P15	30	10C14	17		31	17CPA	36
6P17	30	10DA7	20	12EN6	32	17CB4	36
6P26	32	10DE7	20	12EOP4	10	17CDP4	36
6RP10	12	10EB8	12	12F31	10	17CEP4	36
6RR8	12		17	12FA6	17	17CEP4A	36
6S2A	28	10EG7	24	12FB5	17	17CF4	36
6T8A	19	10ER5	24	12FG6	27	17CGP4	36
6U5M	28	10F18	12	12FK6	18	17CK4	36
6U8A	12	10FD12	12	12FM6	18	17CL6	31
	19	10L14	20	12FQ8	24	17CMP4	36
6V6GTA	32		24	12FR8	16	17CNP4	36
6X6 (Sov.)	39	10LD12	20		24	17CU5	30
6X8A	12	10LD13	20	12FT6	18	17CWP4	36
	20	10P18	30	12FX8	16	17CYP4	36
6Y50	28	10P12	20		24	17CZ4	36
6Z31	28		30	12FY6	18	17D4	28
7ABP4	36	11C5	30	12FY8	24	17DA4	36
7D11	34	11C7	20		34	17DB4	36
7DJ8	20	12AD5	12	12H31	17	17DCP4	36
7ED7	16	12A87	20	12J8	31	17DE4	36
7E58	24	12AF3	39	12MIM (Sov.)	17	17DEP4	36
7EY6	32	12AJ6	18	12R5	30	17DHP4	36
8AU8A	12	12AL8	12	13CL6	31	17DJ4	36
	20		20	13D2	23	17DK4	36
8AW8A	12	12AUB	12	13DE7	20	17DL4	36
	20		20	13DR7	20	17DQ4	36
8BA8/A	12	12B3	28	13EC7	16	17DQ6/A	32
	20	12BC32	18	13GC8	16	17H3	28
8BH8	12	12BL6	10		24	17KPA4	36
	20	12BR7A	20	14ACP4	36	17L6	32
8BN8	20	12BK6	16	14AEP4	36	17R5	30
8BQ5	30	12CN5	10	14AJ4	36	17RP4C	36
8CN7	20	12CR5	30	14AR4	36	17VP4B	36
8CS7	20	12CT8	12	14ASP4	36	18A5	32
8CX8	12		10	14ATP4	36	18DZ8	36
	20	12CX6	20	14AZP4	36		31
8CY7	20	12CY6	10	14CP4A	36	18F24	14
8D8	12	12DB5	30	14CG6	20	18FW6	10
8EB8	12	12DE8	12	14NP4	36	18FX6	17
	30	12DF5	28	14NPA4	36	18FY6	18
8EM5	30	12DF7	20	14RP4	36	19BW7	36
8MP12	30	12DK5	12	14RPA	36	19B6	16
8SNG7BT	23	12DK7	12	14SP4	36	19CL8A	16
8XP4	36	12DL8	30	14UP4	36		24
9AQ5	30	12DM5	30	14WP4	36	19CS4	28
9AU7	20	12DO7	12	14XP4A	36	19DA5	27
9BK7A	20		30	14Y7	17	19DC8	16
9BR7	20	12DS7	12	14ZP4	30	19DE7	35
	18	12DT5	30	15A6C	32	19EA8	16
	20	12DT7	20	15CW5	31		24
9CL8	12	12DT8	20	15DQ8	20	20D4	17
	20	12DU7	30		31	20Y40	28
9D7	12	12DV7	20	15DX8	24	21ATP4B	36
9DZ8	20	12DV8	12		34	21AXP22A	36
	30	12DW5	31	16WP4B	36	21BS4	36
9EF6	32	12DW7	20	17AV5GA	32	21BT4	36
9EN7	16	12DW8	20	17BJ4	36	21CBP4	36
	24	12DY8	12	17BK4	36	21CRP4A	37
9GB8	16		20	17BK4A	36	21CDP4	37
	12	12DZ6	20	17CBP4	36	21CP4A	37
9QP4	36	12DZ8	20	17CNP4	36	21CEP4A	36
9T8	20		31	17BQ6	32	21CGP4	37
9UBA	12	12EA6	10	17BRP4	36	21CHP4	37
	20		20	17B5P4	36	21CKP4	37

Valve Type	Page No.	Valve Type	Page No.	Valve Type	Page No.	Valve Type	Page No.
21CLP4	37	35DZ8	20	6832	26	7408	34
21CMP4	37		31	6840	21	7432	26
21COP4	37	35L31	30	6851	21	7432	26
21CSP4	37	35Y31	28	6854	21	7434	26
21CUP4	37	35AM3	28	6870	14	7435	26
21CVP4	37	38A3	28		31	7436	26
21CW7	24	45BQ5	34	6872	26	7437	26
21CWP4	37	45DQ8	24	6877	21	7438	26
21CXP4	37		34	6883	32	7501A	37
21CYP22	37	45DZ8	24	6887	39	7502A	37
21CZP4	37		34	6888	14	7503A	37
21DAP4	37	50BM8	12	6893	32	A1600	14
21DEP4	37		20	6900	21	A2272	29
21DFP4	37	50CAS	30	6913	21	AA91E	39
21DJ8	24	50DC4	28	6919	39	AL860	32
21DMP4	37	50EHS	30	6922	21	AW17-20	37
21DVP4	37	50FY8	24	6923	26	AW17-69	37
21DWP4	37		34	6927	18	AW22-10	37
21EAP4	37	55N3	28	6928	30	AW36-40	37
21ELP4	37	55A3	35	6939	32	AW36-80	37
21EMP4	37	396A	20	6943	26	AW43-88	37
21ENP4	37	401A	10	6944	26	AW53-80	37
21EQP4	37	407A	20	6945	26	AW53-88	37
21ERP4	37	408A	10	6946	26	AW61-88	37
21E58	24	409A	10	6947	26	B23M1	37
21ESP4	37	4168	25	6948	26	B30M1	37
21EX6	34	5624	34	6949	10	B30M2	37
21EWP4	37	5764	26	6955	22	B43M1	37
21L40	31	5765	26	6968	10	B109	22
22DE4	28	5766	26	6973	32	B129	22
22EP22	37	5767	26	6977	26	C3a	16
24ADP4	37	5884	37	5884	26	C3g	16
24AEP4	37	5948	26	7025	22	C3g	14
24AMP4	37	5969	26	7027	32	C14MH1	37
24AJP4	37	5970	26	7032	11	C14LM	37
24AMP4	37	5972	26	7038	11	C14LM1	37
24AVP4	37	6082A	23	7044	12	C14PM	37
24WVP4	37	6095	34	7054	14	C17AA	37
24XAP4	37	6097	39	7055	39	C17MH/1	37
25CR5	31	6099	18	7056	11	C17JM	37
25D4	28	6146	32	7057	22	C17LM	37
25DQ6A	32	6147	26	7058	22	C17PM	37
25DT5	31	6159	32	7059	14	C17SM	37
25EC4	32	6189	21	7060	12	C21AA	37
25EHS	30	6224	26	7060	14	C21SM	38
25FY8	24	6269	26		22	C21TM	37
25GF6	34	6354	35	7061	32	C24KM	38
25HW15	28	6384	32	7062	22	CC81E	22
26AE6	28	6386	21	7118	22	CC82E	22
27BL8	16	6394	23	7125	22	CC86E	22
27VP4	37	6414	24	7137	18	CME141	38
27WP4	37	6418	26	7150	14	CME1402	38
29C1	39	6419	26	7167	11	CME1703	38
30C13	12	6466/A	13	7189	32	CME2101	38
	20	6516	10	7199	14	CO241	14
30C15	16	6520	23	7203A	37	CO243	32
30L15	24	6526	26	7204A	37	CO244	14
30P16	20	6533	26	7205A	37	CO257	14
30P18	31	6535	24	7227	32	CO258	14
30P19	31	6540	26	7236	32	CRM172	38
30PL13	34	6582/A	13	7244	23	CRM173	38
	20	6678	13	7245	18	D3a	11
	31		21	7247	18	DAF961	14
31BX7	23	6686	31	7258	24	DCF60	26
32ET5	30	6687	17		14	DDR3	28
35A3	28	6688	13	7318	22	DDR7	30
35C3	28	6689	14	7320	22	DF60	26
35CD6A	32	6754	28	7327	26	DF668	26
35D5	31	6763	29	7404A	37	DF669	26
						DF703	26

Valve Type	Page No.	Valve Type	Page No.	Valve Type	Page No.	Valve Type	Page No.
DF961	11	E7732	26	N119	32	R271	27
DH109	22	E7734	26	N308	32	R290	39
DH118	24	E7762	26	N359	32	56F12	11
DH119	22	EF9065	14	N379	34	56F17	11
DH718	24	EF940	14	OZDF	14	TS51	11
DK962	17	EF961	14	OC2	25	TS52	18
DL29	34	EF905	11	PC86	22	TS53	14
DL620	26	EHB1	16	PC92	24	TS54	14
DL962	30	E1177	30	PC95	17	TYGBF	28
DL963	30	CH9005	31	PCC88	22	U47	29
DM160	26	EL30	14	PCC89	22	U49	29
DX144	25	EL71	26	PCC189	22	U54	28
DX145	25	EL131	32	PCF84	14	U118	29
EY667	26	EL183	32		22	U119	28
EGOCF	14	EL360	32	PCL84	22	U192	28
E18035	22	EL8035	32		32	U291	29
E181CC	22	EL861	32	PF83	16	U339	29
ERIH	16	EL863	32	PLI83	32	U381	28
E82CC	21	ELL80	34	PLL80	31	U718	29
E83CC	24	EM84	27	PM84	27	UC95	24
E86C	21	EM840	27	PTT120P	24	UC84	22
E90F	21	EM4901	27	PTT141	24	UC88	24
E91AA	39	EN92	35	PTT202S	14	UC89	24
E95F	11	EN93	35	PTT203	15	UCF80	22
E98F	11	EY83	28	PTT206P	15		
E180CC	22	EY88	28	PTT208P	15	UCH80	17
E181CC	22	EZ800	38	PTT212P	15	UCL84	24
E182CC	22	FZ11	15	PTT213P	15		
E235L	34	GZ37	32	PTT214P	15	UF81	14
E236L	34	IF860	28	PTT216	15	UF86	14
E280F	16	IL861	21	PTT217	14	UH171	17
E283CC	24	KT88	32	PTT241P	15	ULL80	34
EA766	26	LN119	24	PTT243P	15	UM81	27
EAP62	39		34	PTT301A	15	UM84	27
EAA915	39	LN319	22	PY83	28	UO12	28
EBF83	17		32	PY88	28	W25	11
EC71	26	LZ329	14	Q575/20	35	W118	14
EC86	22		32	Q575/60	35	W119	14
EC95	21	M8080	18	OS108/4E	35	W739	14
EC760	25	M8091	28	OS1200	35	WD115	16
EC903	18	M8098	35	OS1201	35	X20	17
EC970	25	M8132	35	OS1202	35	X25	17
ECC86	22	M8133	35	OS1203	35	X118	17
ECC88	22	M8140	15	OS1204	35	X119	17
ECC189	22	M8141	29	OS1205	35	XR6	27
ECC230	23	M8142	35	OS1206	35	XR7	27
ECC8015	22	M8144	25	OS1207	35	XR8	27
ECC802	24	M8149	25	OS1208	35	XR9	26
ECC8025	22	M8162	22	OS1209	35	Y25	27
ECC803	24	M8163	35	OS1210	35	Y119	27
ECC865	22	M8178	35	OS1211	35	Z329	14
ECC960	18	M8179	25	OS1212	35	ZD25	11
ECC962	18	M8180	15	OS1213	35		
ECF82	14	M8184	39	R116	14		
	14	M8195	35	R117	34		
ECF83	14	M8196	11	R120	32		
	22	M8204	35	R122N	15		
ECH83	14	M8207	35	R123	34		
	22	M8208	35	R125C	23		
ECH113	17	M8212	39	R126F	34		
ECL83	32	M8214	35	R128	39		
	32	M8223	35	R134	34		
ECL84	22	M8224	35	R142	15		
	32	MP17-20	38	R143	15		
	14	MW13-35	38	R144	11		
EF89F	11	MW17-69	38	R145	15		
EF97	11	MW22-22	38	R147	34		
EF98	15	MW36-67	38	R148	14		
EF183	15	MW53-22	38	R150	24		
EF184	16	N25	38	R242P	27		
EF730	26	N118	32	R243	25		
EF731	26			R263	27		

RUSSIAN INDEX

Valve Type	Page No.	Valve Type	Page No.
ЛК715	38	6С7Б	26
ЛК715А	38	6Ж1Б	26
ЛК726	38	6Ж2б	26
18ЛК15	38	1П2Б	26
ЛК740	38	6С1П	18
23ЛК1Б	38	6С2П	18
31ЛК1Б	38	6Н15П	18
40ЛК1Б	38	6Х2П	28
6Б2П	10	6П4П	28
6К1П	10	1Ш1С	28
6К4П	10*	1Ш7С	28
6Ж1П	10	2ШС	28
6Ж2П	10	3ШС	28
6Ж3П	10	5ШС	28
6Ж4П	10	30Л1М	28
6Ж5А	10	30Л6С	28
6Ж5П	10	1А1П	17
2Г2М	22	6А2П	17
2С3М	22	6Д1М	17
2Ф1М	22	6Л7	17
2Ф2М	22	СБ242	17
6Г1	23	6П1П	30
6Г2	23	6П2П	30
6Г7	23	2К2М	14
6Г7С	23	2К1М	14
6Ф5С	23	2К2М	14
12Г1	23	6Б8С	14
12Г2	23	6Ж2М	14
СБ240	23	6Ж3М	14
СБ243	23	6Ж4	14
СБ245	23	6Ж3	14
УБ24С	23	6Ж6М	14
СБ244	32	6Ж7	14
СБ246	32	6Ж8	14
СБ258	32	6К3	14
2Ж1М	32	6К4	14
2П1М	32	6К7	14
2П2М	32	6К9С	14
2П9М	32	6П9	14
4П1П	32	6ФУ6	14
6Ц6А	26	12Б1М	14
6П3М	32	12Б2М	14
6П6С	32	12Ж1М	14
6П7С	32	12Ж8	14
6Ф6С	32	12К1М	14
23П1С	32	12К3	14
30П1С	32	12К4	14
6Н1П	20	СБ241	14
6Н2П	20	Г837	11
О6П2Б	27	1К1П	10
6С6Б	26	1Б1П	10
		2П1П	10

BERNARDS & BABANI PRESS RADIO AND ELECTRONICS BOOKS

BP1	First Book of Transistor Equivalents and Substitutes	40p
BP	Handbook of Radio, TV, Ind & Transmitting Tube & Valve Equivalents	60p
BP3	Handbook of Tested Transistor Circuits	40p
BP4	World's Short, Medium & Long Wave, FM & TV Broadcasting Stations Listing (International Edition)	60p
BP5	Handbook of Simple Transistor Circuits	35p
BP6	Engineers and Machinists Reference Tables	20p
BP7	Radio and Electronic Colour Codes and Data Chart	15p
BP8	Sound and Loudspeaker Manual	50p
BP9	38 Practical Tested Diode Circuits for the Home Constructor	35p
BP10	Modern Crystal and Transistor Set Circuits for Beginners	35p
BP11	Practical Transistor Novelty Circuits	40p
BP12	Hi-Fi, P.A., Guitar & Discotheque Amplifier Design H/book	75p
BP13	Electronic Novelties for the Motorist	50p
BP14	Second Book of Transistor Equivalents	95p
BP15	Constructors Manual of Electronic Circuits for the Home	50p
BP16	Handbook of Electronic Circuits for the Amateur Photographer	60p
BP17	Radio Receiver Construction Handbook using IC's and Transistors	60p
BP18	Boys & Beginners Book of Practical Radio & Electronics	60p
BP19	Second Constructors Manual, Electronic Circuits for the Home	75p
BP20	Ham's Handbook of Radio and Electronic Circuits	75p
BP21	Practical-Circuits for Solid State Receivers	75p
BP22	79 Electronic Novelty Circuits	75p
BP23	First Book of Practical Electronic Projects	75p
100	A Comprehensive Radio Valve Guide - Book 1	40p
121	A Comprehensive Radio Valve Guide - Book 2	40p
126	Boys Book of Crystal Sets	25p
129	Universal Gram-Motor Speed Indicator	10p
138	How to make FM and TV Aerials - Bands 1/2/3	25p
143	A Comprehensive Radio Valve Guide - Book 3	40p
150	Practical Radio Inside Out	40p
157	A Comprehensive Radio Valve Guide - Book 4	40p
160	Coil Design and Construction Manual	50p
161	Radio, TV and Electronics Data Book	60p
170	Transistor Circuits for Radio Controlled Models	40p
177	Modern Transistor Circuits for Beginners	40p
178	A Comprehensive Radio Valve Guide - Book 5	40p
183	How to receive foreign TV programmes on your set by simple modifications	35p
195	High Fidelity 14 Watt Amplifier Design Chart	15p
196	AF-RF Reactance-Frequency Chart for Constructors	15p
197	Inexpensive Push-Pull Amplifier Construction Chart	15p
200	Handbook of Practical Electronic Musical Novelties	50p
201	Practical Transistorised Novelties for Hi-Fi Enthusiasts	35p
202	Handbook of Integrated Circuits (IC's) Equivalents and Substitutes	75p
203	IC's and Transistor Gadgets Construction Handbook	60p
204	Second Book of Hi-Fi Loudspeaker Enclosures	60p
205	First Book of Hi-Fi Loudspeaker Enclosures	60p
206	Practical Transistor Circuits for Modern Test Equipment	60p
207	Practical Electronic Science Projects	75p
208	Practical Stereo and Quadrophony Handbook	75p
209	Modern Tape Recording Handbook	75p
210	The Complete Car Radio Manual	75p
211	First Book of Diode Characteristics Equivalents and Substitutes	95p
RCC	Resistor Colour Code Disc Calculator	10p

BABANI PRESS & BERNARDS (PUBLISHERS) LIMITED

The Grampians, Shepherds Bush Road, London W6 7NF

Telephone Number: 01 603 2581/7296