"The Broadcaster" Classified Valve Data Chart

CHARACTERISTICS of all familiar British and American valves are contained in THE BROADCASTER Valve Chart. The figures have been submitted to every manufacturer concerned for checking, and are, therefore, absolutely correct.

There are 17 sections to the chart, each type of valve being dealt with, as far as possible, in the order in which it is used, starting from the aerial end of a receiver.

American valves are grouped together in a separate section this year. As American makers adhere to standards for nearly all types, only these standards are given.

In each section dealing with British types, the valves are grouped under makers' names, and are then subdivided into directly heated, A.C. and A.C.-D.C. types.

The following abbreviations are used: * indicates indirectly heated A.C.; ** directly heated A.C.; ° indicates A.C.-D.C. In the pins column, SC means side contact base, O indicates octal, A American, C Continental and Sp means special. In the screen-grid and H.F. pentode section, S indicates screen-grid, VS variable-mu screen-grid, P means H.F. pentode and VP variable-mu pentode. Elsewhere V means variable.

Valves used principally in H.F. sections are listed this week. Tables for other types, including barretters and cathode-ray tubes, and American types, will be published shortly.

FREQUENCY CHANGERS

Maker.	Type.	Circuit.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Screen volts.	Oscil-lator volts.	Conv. cdt. m'hos.	Bias volts.	Price
Brimar	*15A2 ..	Heptode ..	7	4.0	0.65	250	100	200	550	—3—40	15/-
	°15D1 ..	Heptode ..	7	13.0	0.2	250	100	200	550	—3—40	15/-
Cossor	210PG ..	Pentagrid ..	7	2.0	0.1	150	80	—	900	—	14/-
	210SPG ..	Pentagrid ..	7	2.0	0.1	150	80	—	900	—	14/-
	210DG ..	Bigrid	5	2.0	0.1	—	—	—	190	—	20/-
	*41MPG ..	Pentagrid ..	7	4.0	1.0	250	100	—	1,000	—	15/-
	*41STH ..	Triode Hexode ..	7	4.0	1.0	250	100	—	1,000	—	15/-
	°13PGA ..	Pentagrid ..	7	13.0	0.2	250	100	—	1,000	—	15/-
	°202MPG ..	Pentagrid ..	7	20.0	0.2	250	100	—	1,000	—	15/-
	°202STH ..	Triode Hexode ..	7	20.0	0.2	250	100	—	1,000	—	15/-
	*41MDG ..	Bigrid	5	4.0	1.0	200	—	—	250	—	19/-
Dario	BK22 ..	Octode	7	2.0	0.14	135	45	135	250	0	12/6
	*TK24	Octode	7	4.0	0.65	250	70	70	600	—1½	14/-
	°TB5013 ..	Octode	7	13.0	0.2	200	70	70	600	—1½	14/-
Ever Ready	K80A ..	Octode	7	2.0	0.1	150	70	150	200	0	14/-
	K80B ..	Octode	7	2.0	0.12	135	45	135	270	—½	14/-
	*A80A ..	Octode	7	4.0	0.65	250	90	90	600	—1½	15/-
	*A36A ..	Hexode ..	7	4.0	1.0	250	70	—	1,000	—1½	15/-
	*A36B ..	Triode Hexode ..	7	4.0	1.45	250	100	—	750	—2	15/-
	°C36A ..	Triode Hexode ..	7	21.0	0.2	250	70	—	1,000	—1½	15/-
	°C80B ..	Octode	7	13.0	0.2	200	90	—	600	—1½	15/-
	°C36B ..	Triode Hexode ..	7	29.0	0.2	200	150	100	1,000	—1½	15/-
Ferranti	*VHT4 ..	Heptode ..	7	4.0	1.0	250	100	100	650	—3	15/-
Hivac	TP230 ..	Triode Pentode	9	2.0	0.3	150	70	150	325	0—12	14/-
Marconi	X22 ..	Heptode ..	7	2.0	0.15	150	70	110	350	0	14/-
	*X41 ..	Triode Hexode ..	7	4.0	1.2	250	80	150	640	—1½	15/-
	*X42 ..	Heptode ..	7	4.0	0.6	250	100	150	500	—3—50	15/-
	*MX40 ..	Heptode ..	7	4.0	1.0	250	80	150	500	—3—40	15/-
	*X64 ..	Mixing Heptode	O	6.3	0.3	250	150	—	310	—3—40	12/6
	*X63 ..	Heptode ..	O	6.3	0.3	250	100	150	500	—3—50	15/-
	*X65 ..	Triode Hexode ..	O	6.3	0.3	250	100	100	225	—3—40	15/-
	°X31 ..	Triode Hexode ..	7	13.0	0.3	250	80	150	640	—1½	15/-
	°X30 ..	Heptode ..	7	13.0	0.3	250	100	150	800	—3—37	15/-
	°X32 ..	Heptode ..	7	13.0	0.3	250	100	150	800	—3—37	15/-
Mazda	TP22 ..	Triode Pentode	9	2.0	0.25	150	60	150	500	—1½	14/-
	TP23 ..	Triode Pentode	7	2.0	0.25	120	60	120	250	—1½	14/-
	*AC/TP ..	Triode Pentode	9	4.0	1.25	250	200	250	700	—5	15/-
	*AC/TH ..	Triode Hexode ..	7	4.0	1.25	250	100	250	750	—3	15/-
	°TP1340 ..	Triode Pentode	9	13.0	0.4	250	200	200	700	—5	15/-
	°TP2620 ..	Triode Pentode	9	26.0	0.2	250	200	200	700	—5	15/-
	°TH2320 ..	Triode Hexode ..	7	26.0	0.2	250	100	250	7,500	—3	15/-
Mullard	FC2 ..	Octode	7	2.0	0.1	135	70	135	200	0	14/-
	FC2A ..	Octode	7	2.0	0.12	135	45	135	270	—½	14/-
	*TH4 ..	Triode Hexode ..	7	4.0	1.0	250	70	130	1,000	—1½	15/-
	*TH4A ..	Triode Hexode ..	7	4.0	1.45	250	100	100	750	—2	15/-
	*FC4 ..	Octode	7	4.0	0.65	250	70	90	600	—1½	15/-
	°FC13 ..	Octode	SC-P	13.0	0.2	200	70	90	600	—1½	20/-
	°TH13C ..	Triode Hexode ..	7	13.0	0.31	250	70	130	1,000	—1½	15/-
	°TH21C ..	Triode Hexode ..	7	21.0	0.2	250	70	130	1,000	—1½	15/-
	°TH22C ..	Triode Hexode ..	7	29.0	0.2	250	150	100	—	—	15/-
	°FC13C ..	Octode	7	13.0	0.2	200	70	90	600	—1½	15/-
Osram ..	X22	Heptode ..	7	2.0	0.15	150	70	110	350	0	14/-
	*X41	Triode Hexode ..	7	4.0	1.2	250	80	150	640	—1½	15/-
	*X42	Heptode ..	7	4.0	0.6	250	100	200	490	—3	15/-
	*MX40 ..	Heptode ..	7	4.0	1.0	250	100	150	500	—3	15/-
	*X63 ..	Heptode ..	O	6.3	0.3	250	100	175	500	—3	15/-
(Sep. Osc.)	*XC4	Hexode ..	O	6.3	0.3	250	150	—	310	—6	12/6
	*X65	Triode Hexode ..	O	6.3	0.3	250	100	250	225	—3	15/-
	°X31	Triode Hexode ..	7	13.0	0.3	250	80	150	640	—1½	15/-
Ostar Ganz	°G5	Pentagrid ..	7c	250.0	0.02	250	60	150	600	—1.4——30	17/6
Record ..	OC2	Octode	7	2.0	0.13	135	45	135	270	—1—12	11/6
	*AC/OC4 ..	Octode	7	4.0	0.65	250	70	90	700	—1½—25	12/6
	*AC/TH4 ..	Triode Hexode ..	7	4.0	1.0	300	80	150	1,000	—1½—25	12/6
	°OC/13 ..	Octode	7	13	0.2	200	70	90	600	—1½—25	12/6
	°OC/13L ..	Octode	8sc	13	0.2	200	70	90	600	—1½—25	12/6
	°TH/21DA ..	Triode Hexode ..	7	21	0.2	200	80	150	1,000	—1½—25	12/6
Triotron ..	O202	Octode	7	2.0	0.14	135	45	135	250	0	11/6
	*O406	Octode	7	4.0	0.65	250	70	70	600	—1½	12/-
	*O1307 ..	Octode	8c	13.0	0.2	200	70	70	600	—1½	12/-
Tungsram ..	VO2	Octode	7&sc	2.0	0.13	135	45	135	270	—1—12	14/-
	*TX4	Triode Hexode ..	7	4.0	1.0	300	80	150	1,000	—1½—25	15/-
	*VO4	Octode	7	4.0	0.65	250	70	90	600	—1½—25	15/-
	*VO6S ..	Octode	8sc	6.3	0.2	250	60	200	450	—2—25	18/-
	*VX6S ..	Hexode ..	8sc	6.3	0.2	250	100	—	400	—3—25	18/-
	*6TH8 ..	Triode Hexode ..	O	6.3	0.6	300	80	150	1,000	—1½—25	15/-
	°VO13 ..	Octode	7&sc	13.0	0.2	250	70	90	600	—1½—25	15/-
	°TX21 ..	Triode Hexode ..	7	21.0	0.2	250	80	150	1,000	—1½—25	15/-
362	*ACFC4 ..	Heptode ..	7	4.0	1.0	250	80	150	—	0—10	15/-

SCREEN GRIDS AND H.F. PENTODES

Maker.	Type.	Des-crip-tion.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Screen volts.	Bias volts.	Anode current.	Screen current.	Bias res. ohms.	Slope ma./v.	Price.
Brimar ..	*8A1	P	5 or 7	4.0	1.0	250	100	—1½	3.5	—	200	4.0	12/6
	*9A1	VP	5 or 7	4.0	1.0	250	100	—1½—40	5.0	—	V	4.25	12/6
	°9D2	VP	7	13.0	0.2	250	125	—3—40	10.0	2.6	V	1.65	12/6
Cossor ..	215SG ..	S	4	2.0	0.15	150	80	0	2.4	—	—	1.1	11/-
	220SG ..	S	4	2.0	0.2	150	80	0	3.1	—	—	1.6	11/-
	220VSG ..	VS	4	2.0	0.2	150	80	0—15	2.6	—	—	1.6	11/-
	220VS ..	VS	4	2.0	0.2	150	80	0—9	1.6	—	—	1.6	11/-
	210SPT ..	P	4 & 7	2.0	0.1	150	80	0	3.0	—	—	1.3	11/-
	210VPT ..	VP	4 & 7	2.0	0.1	150	80	0—9	2.9	7.5	—	1.1	11/-
	*41MSG ..	S	5	4.0	1.0	200	80	—1½	0.8	—	1,500	2.5	17/6

(Continued on page vi)

Screen Grids and H.F. Pentode—Continued

Maker.	Type.	Description.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Screen volts.	Bias volts.	Anode current.	Screen current.	Bias res. ohms	Slope ma,/v.	Price.
Cossor	*MSG/BA ..	S	5	4.0	1.0	200	100	—1½	2.1	—	600	2.1	12/6
(contd:)	*MSG/LA ..	S	5	4.0	1.0	200	100	—1½	5.2	—	250	3.75	12/6
	*MVSG ..	VS	5	4.0	1.0	200	100	—1½—35	7.8	7.5	V	2.5	12/6
	*MS/Pen ..	P	5 & 7	4.0	1.0	200	100	—	4.5	1.3	—	3.5	12/6
	*MS/PenB ..	P	7	4.0	1.0	200	100	—	—	—	—	3.5	12/6
	*MS/PenA ..	P	—	4.0	1.0	200	150	—	9.0	5.0	200	4.0	17/6
	*MVS/Pen ..	VP	5 & 7	4.0	1.0	200	100	0—20	—	1.3	V	3.0	12/6
	*MVS/PenB	VP	7	4.0	1.0	200	100	0—20	—	—	V	3.0	12/6
	°13SPA ..	P	7	13.0	0.2	200	100	—	—	1.3	—	2.5	12/6
	°13VPA ..	VP	7	13.0	0.2	200	100	0—30	—	2.2	V	1.8	12/6
	°DVSG ..	S	5	16.0	0.25	200	100	—1½—30	7.5	—	V	2.5	17/6
	°DS/Pen ..	P	5	16.0	0.25	200	100	—	—	—	—	3.0	17/6
	°DVS/Pen ..	VP	5	16.0	0.25	200	100	0—20	—	—	V	3.0	17/6
Dario	TB622 ..	S	4	2.0	0.18	150	90	—½	2.0	0.5	—	1.4	9/6
	TB452 ..	VS	4	2.0	0.15	150	75	0—9	2.0	0.4	—	1.5	9/6
	PF462 ..	P	7	2.0	0.18	150	150	—½	3.0	1.0	—	1.85	10/–
	PF472 ..	VP	7	2.0	0.18	150	150	—½—16	2.5	6.5	—	1.7	10/–
	*TE424 ..	S	5	4.0	1.0	200	100	—1.3	1.5	0.5	650	0.9	11/6
	*TE524 ..	S	5	4.0	1.0	200	100	—2	3.0	1.0	500	2.0	11/6
	*TE554 ..	VS	5	4.0	1.0	200	100	—1½—40	3.0	1.0	V	3.0	11/6
	*TE464 ..	P	5 & 7	4.0	1.1	200	100	—2	3.0	1.5	450	3.5	11/6
	*TE474 ..	VP	5 & 7	4.0	1.1	200	100	—1½—30	4.5	2.0	V	3.5	11/6
	°TF713 ..	P	7	13.0	0.2	200	100	—2	3.0	1.0	500	2.4	11/6
	°TF313 ..	VP	7	13.0	0.2	200	100	—3—50	4.5	1.0	V	2.8	11/6
Ekco	*VP41 ..	VP	7	4.0	0.65	250	250	—3—40	12.0	4.5	180	3.5	12/6
	°VPU1 ..	VP	7	13.0	0.2	250	250	—3—40	12.0	4.5	180	3.5	12/6
Ever	K40B ..	S	4	2.0	0.18	150	90	0	2.9	—	—	1.5	11/–
Ready	K40N ..	VS	4	2.0	0.18	150	90	0—7	2.5	—	—	1.4	11/–
	K50M ..	VP	7	2.0	0.18	150	150	0—7	3.75	—	—	1.75	11/–
	K50N ..	VP	7	2.0	0.14	135	60	—1.1	2.0	—	—	1.4	11/–
	*A40M ..	VS	5	4.0	1.0	200	110	—1½—40	6.0	—	V	2.5	12/6
	*A50A ..	P	7	4.0	1.0	200	100	—1½	4.5	—	—	3.0	12/6
	*A50B ..	P	7	4.0	0.65	250	250	—2	4.5	—	—	4.0	12/6
	*A50M ..	VP	7	4.0	1.0	200	100	—1½—22	6.0	—	V	2.5	12/6
	*A50N ..	VP	7	4.0	1.2	200	100	—1½	5.0	—	V	3.27	12/6
	*A50P ..	VP	7	4.0	0.65	250	250	—3	12.0	—	V	3.5	12/6
	°C50B ..	P	7	13.0	0.2	200	200	—1½	2.5	—	V	4.0	12/6
	°C50N ..	VP	7	13.0	0.2	200	200	—2	9.0	—	V	3.0	12/6
Ferranti	*VPT4 ..	VP	5	4.0	1.0	250	100	—3.28	5.5	3.0	V	—	12/6
Hivac	XSG ..	S	M	2.0	0.066	120	60	0	2.2	0.5	—	0.75	15/6
	SG215 ..	S	4	2.0	0.15	150	75	—1½	2.7	0.8	—	1.0	9/6
	SG220 ..	S	4	2.0	0.2	150	70	—1½	2.4	0.9	—	1.5	9/6
	SG220SW ..	S	4	2.0	0.2	150	70	—1½	2.4	0.9	—	1.5	12/6
	VS215 ..	VS	4	2.0	0.15	150	75	0—14	6.0	1.7	—	1.0	9/6
	HP215 ..	P	4 & 7	2.0	0.15	150	70	—1½	1.5	0.3	—	1.2	9/6
	VP215 ..	VP	4 & 7	2.0	0.15	150	70	0—9	3.75	0.75	—	1.25	9/6
	*AC/SL ..	S	5	4.0	1.0	200	80	—1	3.8	0.4	250	3.3	10/6
	*AC/SH ..	S	5	4.0	1.0	200	80	—1½	7.4	0.5	200	3.5	10/6
	*AC/VS ..	VS	5	4.0	1.0	200	80	—1½—40	4.4	0.6	V	3.0	10/6
	*AC/VH ..	VS	5	4.0	1.0	200	80	—1½—40	9.3	1.6	V	3.3	10/6
	*AC/HP ..	P	5 & 7	4.0	1.0	200	100	—2	4.2	1.4	350	3.2	10/6
	*AC/VP ..	VP	5 & 7	4.0	1.0	200	100	—1½—30	5.7	2.3	V	3.0	10/6
	°VP13 ..	VP	7	13.0	0.3	200	100	—1½—30	6.3	2.0	V	3.0	10/6
Lissen	SG215 ..	S	4	2.0	0.15	150	80	—	—	—	—	1.1	11/–
	SG2V ..	VS	4	2.0	0.15	150	80	—	—	—	—	1.2	11/–
	SG410 ..	S	4	4.0	0.1	150	80	—	—	—	—	1.25	20/–
	*AC/SG ..	S	5	4.0	1.0	200	80	—	—	—	—	3.25	12/6
	*AC/SGV ..	VS	5	4.0	1.0	250	80	—	—	—	—	3.5	12/6
Marconi	S23 ..	S	4	2.0	0.1	150	70	—1½	2.8	0.7	—	1.1	11/–
	S24 ..	S	4	2.0	0.15	150	70	—1½	3.3	0.7	—	1.4	12/6
	VS24 ..	VS	4	2.0	0.15	150	75	0—9	4.4	0.3	—	1.5	11/–
	VS24/K ..	VS	4	2.0	0.15	150	75	0—9	4.4	0.3	—	1.5	12/6
	VS2 ..	VS	4	2.0	0.15	150	75	0—15	5.0	2.0	—	1.25	12/6
	Z21 ..	B	4 & 7	2.0	0.1	150	150	—½	1.7	0.6	—	1.7	11/–
	W21 ..	VP	4 & 7	2.0	0.1	150	120	—1½	3.0	0.9	—	1.4	11/–
	VP21 ..	VP	7	2.0	0.1	150	60	0—9	2.9	0.7	—	1.1	11/–
	*MS4 ..	S	5	4.0	1.0	200	70	—1½	2.4	0.3	550	1.1	12/6
	*MS4B ..	S	5	4.0	1.0	200	80	—2	3.4	1.2	250	3.2	12/6
	*VMS4 ..	VS	5	4.0	1.0	200	80	—2—30	7.5	2.0	V	2.6	12/6
	*VMS4B ..	VS	5	4.0	1.0	200	80	—1—15	5.0	1.2	V	2.9	12/6
	*MSP4 ..	P	5 & 7	4.0	1.0	200	100	—2	4.0	1.0	—	4.0	12/6
	*MSP41 ..	P	5 & 7	4.0	1.0	250	240	—4	9.0	3.2	—	3.2	15/–
	*W42	VP	7	4.0	0.6	250	125	—3	7.5	2.0	—	1.5	12/6
	*VMP4G ..	VP	7	4.0	1.0	250	100	—2	8.2	5.0	—	2.7	12/6
	*KTZ63 ..	P	O	6.3	0.3	250	125	—3	2.0	0.5	—	1.1	12/6
	*KTW63 ..	VP	O	6.3	0.3	250	125	—3	7.0	2.0	V	1.5	12/6
	°W31 ..	VP	7	13.0	0.3	250	100	—2—20	8.0	5.0	V	3.5	12/6
(Acorn)	**ZA1 ..	P	Sp.	4.0	0.25	250	100	—	—	—	—	—	60/–
Mazda	S215A ..	S	4	2.0	0.15	150	60	—	1.9	0.3	—	1.1	11/–
	SP210 ..	P	7	2.0	0.1	120	120	—1	1.1	0.3	—	1.2	11/–
	SP215 ..	P	7	2.0	0.15	150	80	—1½	2.1	0.7	—	1.6	11/–
	VP210 ..	VP	7	2.0	0.1	120	70	—1½	1.8	0.63	—	1.1	11/–
	VP215 ..	VP	7	2.0	0.15	120	80	—1½	2.5	0.8	—	1.25	11/–
	*AC/SG ..	S	5	4.0	1.0	200	60	—1½	4.5	0.8	—	1.9	12/6
	*AC/S2 ..	S	5	4.0	1.0	200	80	—1½	7.0	0.8	—	4.5	12/6

Maker.	Type.	Description.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Screen volts.	Bias volts.	Anode current.	Screen current.	Bias res. ohms.	Slope ma./v.	Price.
	*AC/S2Pen..	P	7	4.0	1.0	250	100	—2	6.0	2 2	—	4.0	12/6
	*AC/SP1 ..	P	7	4.0	1.0	250	200	—3	4.9	4.1	—	2.6	12/6
	*AC/SP3 ..	P	7	4.0	1.0	250	100	—1½	9.2	3.0	—	7.5	15/–
	*AC/VP1 ..	VP	7	4.0	0.65	250	250	—4	8.8	2.2	V	2.0	12/6
	*AC/VP2 ..	VP	7	4.0	0.65	250	250	—4	8.8	2.2	V	2.0	12/6
	°VP1321 ..	VP	7	13.0	0.2	250	250	—4	8.8	2.2	V	2.0	12/6
	°VP1322 ..	VP	7	13.0	0.2	250	250	—4	8.8	2.2	V	2.0	12/6
	°SP2220 ..	P	7	20.0	0.2	250	200	—3	4.9	4.1	—	2.6	12/6
(Acorn)	*A41 ..	P	Sp.	4.0	0.25	250	100	—	—	—	—	2.0	60/–
Mullard	PM12 ..	S	4	2.0	0.15	135	60	0	3.0	—	—	1.1	11/–
	PM12A ..	S	4	2.0	0.18	135	75	0	2.0	—	—	1.5	11/–
	PM12M ..	VS	4	2.0	0.18	135	75	0—7	1.7	—	—	1.4	11/–
	SP2 ..	P	7	2.0	0.18	135	135	0	3.0	1.0	—	1.8	11/–
	VP2 ..	VP	7	2.0	0.18	135	135	0—7	3.0	1.25	—	1.5	11/–
	VP2B ..	VP	7	2.0	0.14	135	60	—1½	1.6	1.8	—	—	11/–
	*S4V ..	S	4 or 5	4.0	1.0	200	75	—1	1.5	—	600	1.1	17/6
	*S4VA ..	S	5	4.0	1.0	200	110	—1½	2.75	—	450	2.0	12/6
	*S4VB ..	S	5	4.0	1.0	200	110	—1½	4.6	1.05	250	3.4	12/6
	*MM4V ..	VS	5	4.0	1.0	200	110	—1½—40	6.0	—	200	2.5	12/6
	*VM4V ..	VS	5	4.0	1.0	200	100	—1½—40	8.5	—	200	1.2	17/6
	*SP4 ..	P	5 or 7	4.0	1.0	200	100	—2	3.0	—	—	2.3	12/6
	*SP4B ..	P	7	4.0	0.65	250	250	—2.4	4.0	1.5	500	3.4	12/6
	*VP4 ..	VP	5 or 7	4.0	1.0	200	100	—2—50	4.5	—	200	2.3	12/6
	*VP4A ..	VP	5 or 7	4.0	1.2	200	100	—2	4.25	1.8	200	2.5	12/6
	*VP4B ..	VP	7	4.0	0.65	250	250	—3	11.5	4.25	160	2.0	12/6
	°SP13 ..	P	SC-P	13.0	0.2	200	100	—2	3.3	—	400	2.2	17/6
	°VP13A ..	VP	SC-P	13.0	0.2	200	100	—2	4.0	1.4	350	2.2	17/6
	°SP13C ..	P	7	13.0	0.2	200	200	—2.2	2.5	0.9	600	2.8	12/6
	°VP13C ..	VP	7	13.0	0.2	200	200	—2	9.0	3.6	160	2.2	12/6
(Acorn)	*AP4 ..	P	7	4.0	0.25	250	100	—3	2.0	0.7	—	1.4	60/–
	*TSP4 ..	P	7	4.0	1.3	250	250	—3.0	10.5	2.0	250	4.7	17/6
Osram	S23 ..	S	4	2.0	0.1	150	70	—1½	1.3	0.6	—	1.1	11/–
	S24 ..	S	4	2.0	0.15	150	70	—1½	1.4	0.8	—	1.4	12/6
	VS24 ..	VS	4	2.0	0.15	150	75	0—9	4.5	0.5	—	1.5	11/–
	Z21 ..	P	4 & 7	2.0	0.1	150	150	—½	0.7	0.3	—	1.7	11/–
	W21 ..	VP	4 & 7	2.0	0.1	150	150	0—9	3.6	1.2	—	1.4	11/–
	VP21 ..	VP	7	2.0	0.1	150	60	0—9	2.8	0.7	—	1.1	11/–
	*VMP4G ..	VP	7	4.0	1.0	250	100	—2—20	8.0	5.0	V	4.0	12/6
	*W42 ..	VP	7	4.0	0.6	250	125	—3—40	7.5	1.9	V	1.7	12/6
	*Z63 ..	P	O	6.3	0.3	250	125	—3	2.0	0.5	1,200	1.225	12/6
	*W63 ..	VP	O	6.3	0.3	250	100	—3—40	7.6	1.9	V	1.5	12/6
	°W31 ..	VP	7	13.0	0.3	250	100	—2½	8.1	5.0	V	2.78	12/6
Ostar-	°S25 ..	S	7C	250.0	0.24	250	100	—2	7.0	—	200	3.8	15/6
Ganz	*S100 ..	S	7C	250.0	0.24	250	100	—1	1.0	—	600	4.0	15/6
	°MS18 ..	VS	7C	250.0	0.24	250	100	—2	5.0	—	V	3.0	15/6
	°MS70 ..	VS	7C	250.0	0.24	250	100	—2—40	4.0	—	V	3.0	15/6
	°H3 ..	P	7C	250.0	0.24	250	200	—2	1.5	—	700	3.5	15/9
	°V3 ..	VP	7C	250.0	0.24	250	200	—2	3.5	—	V	3.0	15/9
Pix	25 ..	S	—	2.0	0.15	150	75	—1½	2.5	0.5	—	1.0	8/6
	*450/AC ..	S	—	4.0	1.0	200	100	—3	3.5	0.8	700	3.0	10/6
Record	S2 ..	S	4	2.0	0.12	150	75	—0.9	1.5	0.3	—	1.4	6/8
	VS2 ..	VS	4	2.0	0.12	150	75	—½	1.0	0.1	—	1.5	8/6
	HFP2 ..	P	4 & 7	2.0	0.12	150	150	—1½	1.9	0.7	—	1.9	9/–
	VHP2 ..	VP	4& 7	2.0	0.12	150	150	—0.9—17	2.5	0.6	—	1.7	9/–
	*AC/S ..	S	5	4.0	1.0	200	100	—2	3.0	0.8	500	3.0	10/6
	*AC/VS ..	VS	5	4.0	1.2	200	100	—1½—40	3.0	0.8	V	3.0	10/6
	*AC/HFP ..	P	5 & 7	4.0	1.0	200	100	—2	3.5	0.6	600	3.5	10/6
	*AC/HPB ..	P	7	4.0	0.65	250	250	—2	2.9	0.8	500	4.0	10/6
	*AC/VHFP	VP	5 & 7	4.0	1.0	200	100	—2—35	5.0	1.3	V	3.5	10/6
	*AC/VHPB	VP	7	4.0	0.65	250	250	—1—50	10.0	2.5	V	4.0	10/6
	°HFP/13 ..	P	7	13.0	0.2	200	100	—2	3.0	1.5	450	2.4	10/6
	°HFP/13L ..	P	8SC	13.0	0.2	200	100	—2	3.0	1.5	450	2.4	10/6
	°HPB/13 ..	P	7	13.0	0.2	200	200	—1.5	3.5	1.5	300	3.5	10/6
	°VHFP/13	VP	7	13.0	0.2	200	100	—1—10	8.0	2.9	V	3.5	10/6
	°VHFP/13L	VP	8SC	13.0	0.2	200	100	—1—10	8.0	2.9	V	3.5	10/6
	°VHP/13 ..	VP	7	13.0	0.2	200	100	—3—55	8.0	2.6	V	2.8	10/6
	°VHP/13L ..	VP	8SC	13.0	0.2	200	100	—3—55	8.0	2.6	V	2.8	10/6
	°VHPB/13 ..	VP	7	13.0	0.2	200	200	—1—50	10.0	3.5	V	3.5	10/6
Triotron	S207 ..	S	4	2.0	0.15	200	100	—1	3.0	0.5	—	1.0	9/6
	S215 ..	S	4	2.0	0.18	150	90	—1	2.8	0.25	—	1.5	8/6
	S208 ..	VS	4	2.0	0.15	200	100	0—20	5.0	0.5	—	0.8	9/6
	S213 ..	VS	4	2.0	0.18	150	90	—½—12	3.0	0.5	—	1.2	8/6
	S218 ..	P	7	2.0	0.18	150	150	—½	3.0	1.0	—	1.85	8/6
	S217 ..	VP	7	2.0	0.18	150	150	—½—16	2.5	0.5	—	1.7	8/6
	S408 ..	S	5	4.0	0.06	200	100	—1	4.0	0.35	—	0.8	10/6
	*S410N ..	S	5	4.0	1.0	200	60	—2	4.0	1.0	400	1.0	10/–
	*S430N ..	S	5	4.0	1.0	200	100	—2	3.0	1.0	500	3.0	10/–
	*S415N ..	VS	5	4.0	1.0	200	100	—2—40	6.0	1.0	V	1.5	10/–
	*S431N ..	VS	5	4.0	1.0	200	70	—2—30	3.5	1.0	V	3.0	10/–
	*S435N ..	P	5 & 7	4.0	1.1	200	100	—2	5.0	1.0	500	3.5	10/–
	*S434N ..	VP	5 & 7	4.0	1.1	200	100	—2—35	5.5	1.0	V	3.5	10/
	°S1328 ..	P	8C	13.0	0.2	200	100	—2	3.0	1.0	500	2.8	10/–
	°S1324 ..	P	7	13.0	0.2	200	200	—2	3.0	1.0	500	2.4	10/–

(Continued on page vii)

Screen Grids and H.F. Pentodes—Continued

Maker.	Type.	Description.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Screen volts.	Bias volts.	Anode current.	Screen current.	Bias res. ohms.	Slope ma./v.	Price.
Tungsram	°S1323	VP	7 & 8c	13.0	0.2	200	100	—3—50	4.5	1.0	V	2.8	10/–
	°S2035N	P	5	20.0	0.18	200	100	—2	5.0	2.0	250	3.5	10/–
	°S2034N	VP	5	20.0	0.18	200	100	—2—35	5.0	2.0	V	3.4	10/–
	SS210	S	4	2.0	0.12	150	75	—.9	0.6	0.1	—	1.4	10/–
	SE211	VS	4	2.0	0.12	150	75	—.9—5	1.0	0.1	—	1.3	10/–
	SP2B	P	7&SC	2.0	0.05	135	135	—.5	1.2	0.4	—	0.8	11/–
	HP210C	P	4 & 7	2.0	0.12	150	150	—1½	1.9	0.7	—	1.9	11/–
	VP2B	VP	7 &SC	2.0	0.05	135	135	0—15	2.5	0.8	—	0.65	11/–
	HP211C	VP	4 & 7	2.0	0.12	150	150	0—17	2.6	0.6	—	1.7	11/–
	*AS4120	S	5	4.0	1.0	200	100	—2	3.0	0.8	500	3.0	12/6
	*AS4125	VS	5	4.0	1.2	200	100	—1½—40	3.0	0.8	V	3.0	12/6
	*HP4101	P	5 & 7	4.0	1.0	200	100	—2	3.5	0.6	600	3.5	12/6
	*SP4B	P	7	4.0	0.65	250	250	—2	2.9	0.8	500	4.0	12/6
	*HP4115	P	5 & 7	4.0	1.0	200	100	—2—10	4.5	1.5	150	3.2	12/6
	*VP4B	VP	7	4.0	0.65	250	250	—1—50	10.0	2.5	V	4.0	12/6
	*HP4106	VP	5 & 7	4.0	1.0	200	100	—2—35	5.0	1.25	V	3.5	12/6
	°SP65	P	8SC	6.3	0.2	250	100	—2	3.0	1.0	500	2.0	15/–
	°VP6S	VP	8SC	6.3	0.2	250	100	—3—50	8.0	2.5	V	1.7	15/–
	°SP13	SP	7 & SC	13.0	0.2	200	100	—2	3.0	1.5	450	2.4	12/6
	°SP13B	SP	7	13.0	0.2	200	200	—1½	3.5	1.5	—	3.5	12/6
	°HP13	VP	7 & SC	13.0	0.2	200	100	—1—10	8.0	2.9	V	3.5	12/6
	°VP13	VP	7 & SC	13.0	0.2	200	100	—3—55	8.0	2.6	V	2.8	12/6
	°VP13B	VP	7	13.0	0.2	200	200	—1—50	10.0	3.5	V	3.5	12/6
362	SG2	S	4	2.0	0.2	150	80	—3	1.5	0.3	—	1.5	7/6
	VS2	VS	4	2.0	0.2	150	80	0—20	5.0	1.0	—	1.2	7/6
	VP2	VP	4	2.0	0.2	150	80	0—9	4.0	0.8	—	1.2	9/–
	VP2C	VP	7	2.0	0.2	150	80	0—9	4.0	0.8	—	1.2	9/–
	*ACSG4	S	5	4.0	1.0	250	80	—3	6.0	1.2	500	2.5	10/6
	*ACVS4	VS	5	4.0	1.0	250	80	0—40	9.0	2.0	V	2.0	12/6
	*ACVP4	VP	7	4.0	1.0	250	150	0—30	12.0	3.0	V	3.0	12/6
	*ACHM4	P	5	4.0	1.0	350	150	—8	15.0	—	500	2.5	13/–

DIODE COMBINATION VALVES

Maker.	Type.	Description	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Screen volts.	Amp. factor	Slope mA/v.	Bias volts.	Bias res. ohms.	Anode current.	Output m/w.	Price.
Brimar	*11A2	DDT	7	4.0	1.0	200	—	50	2.8	—2	—	3.0	—	12/6
	°11D3	DDT	7	13.0	0.2	250	—	100	1.1	—2	5,000	0.4	—	12/6
Cossor	210DDT	DDT	5	2.0	0.1	150	—	27.5	1.1	—	—	—	—	9/–
	*DDT	DDT	7	4.0	1.0	200	—	41.0	2.4	—3	—	—	—	12/6
	*DDPen	DD Pen	7	4.0	1.0	250	200	—	2.7	—	—	—	—	20/–
	*420TDD	DD & LF Tetrode	7	4.0	2.0	250	250	—	7.0	—5½	130	34.0	—	16/–
	°13DHA	DDT	7	13.0	0.2	250	—	125.0	1.5	—1½	—	—	—	12/6
	°DDT16	DDT	7	16.0	0.25	200	—	40.0	2.5	—	—	—	—	15/6
	°202DDT	DDT	7	20.0	0.2	200	—	—	2.4	—3	—	—	—	12/6
Dario	BBC2	DDT	5	2.0	0.1	135	—	16	1.5	—4½	—	2.5	—	6/6
	*TE444	Diode Tetrode	7	4.0	1.1	200	33	—	0.3	—2½	800	3.0	—	13/6
	*TBC14	DDT	7	4.0	0.65	250	—	27	3.6	—7	1,500	4.0	—	11/–
	°TBC113	DDT	7	13.0	0.2	200	—	27	3.6	—5	1,000	4.0	—	11/–
Ekco	*DT41	DDT	7	4.0	0.65	200	—	29	3.0	3.5	470	7.5	—	12/6
Ever-Ready	K23B	DDT	5	2.0	0.12	150	—	30	1.4	—3	—	1.4	—	9/–
	K23A	DDT	5	2.0	0.1	150	—	16.5	1.4	—5½	—	2.5	—	9/–
	*A23A	DDT	7	4.0	0.65	250	—	29	2.9	—7	—	4.0	—	12/6
	*A27D	DD LF Pen	7	4.0	2.25	250	250	—	10.0	—6	—	36.0	—	16/–
	°C23B	DDT	7	13.0	0.2	200	—	29	2.9	—5	—	4.0	—	12/6
Ferranti	*H4D	DDT	7	4.0	1.0	250	—	39	2.7	—3	—	4.5	—	12/6
Hivac	DDT215	DDT	5	2.0	0.15	150	—	20	1.6	—3	—	3.0	—	7/–
	*AC/DDT	DDT	7	4.0	1.0	200	—	35	2.3	—4	800	5.0	—	10/6
	*AC/2DD	DD Tetrode	7	4.0	2.0	250	250	—	8.0	—5½	160	32.0	3,000	14/–
	DDT213	DDT	7	13.0	0.3	200	—	35	2.3	—4	800	5.0	—	10/6
Lissen	L2/D	D Triode	5	2.0	0.1	150	—	18	1.5	—	—	—	—	9/–
	AVC2	D Pen	5	2.0	0.15	150	100	500	1.0	—	—	—	—	17/6
	*AC/AVC	D Pen	5	4.0	1.0	200	150	1,000	2.0	—	—	—	—	20/–
Marconi	HD21	DDT	5	2.0	0.2	150	—	27	1.5	—1½	—	—	—	11/–
	HD22	DDT	5	2.0	0.2	150	—	27	1.5	—1½	—	—	—	9/–
	*MHD4	DDT	7	4.0	1.0	250	—	40	2.2	—3	1,000	—	—	12/6
	*DH42	DDT	7	4.0	0.6	250	—	70	1.2	—3	1,500	—	—	12/6
	*DH63	DDT	O	6.3	0.3	250	—	70	1.2	—3	1,500	—	—	12/6
	*WD40	DD HF Pen	9	4.0	1.0	250	100	—	3.5	—1—30	V	7.7	—	20/–
Mazda	*DN41	DDLF Pen	7	4.0	2.3	250	250	—	10.0	—3½	90	32.0	3,500	16/–
	°DH30	DDT	7	13.0	0.3	200	—	80	4.5	—2	1.000	2.7	—	12/6
	HL21/DD	DDT	5	2.0	0.15	150	—	32	1.9	—2	—	2.0	—	9/–
	L21/DD	DDT	5	2.0	0.15	150	—	18	1.8	—5	—	2.3	—	9/–
	*AC HL/DD	DDT	7	4.0	1.0	250	—	36	2.6	—4½	—	4.3	—	12/6
	*AC HL/DDD	Triple DT	9	4.0	1.0	250	—	35	2.7	—4½	—	4.9	—	16/6
	*AC2/PenDD	DDPen	7	4.0	2.0	250	250	—	8.0	—5.3	140	32.0	3,500	16/–
	°HLDD/1320	DDT	7	13.0	0.2	250	—	30	2.0	—4½	—	4.8	—	12/6
	°PenDD/1360	DDPen	7	13.0	0.6	250	250	—	8.0	—5.3	140	32.0	3,500	16/–
Mullard	°PenDD/4020	DDPen	7	40.0	0.2	250	250	—	7.0	—8	165	40.0	3,800	16/–
	°PenDD/4021	DDPen	7	40.0	0.2	175	175	—	12.0	—9	115	65.0	4,400	16/–
	TDD2A	DDT	5	2.0	0.12	135	—	30.0	1.2	—1.5	—	1.95	—	9/–
	TDD2	DDT	5	2.0	0.1	150	—	16.5	1.4	—5½	—	2.5	—	9/–
	*SD4	D-tetrode	7	4.0	1.0	200	100	—	3.0	—	—	—	—	20/–
	*TDD4	DDT	7	4.0	0.65	250	—	27.0	2.0	—7	1,500	4.0	—	12/6
	*Pen4DD	DDPen	7	4.0	2.25	250	250	—	9.5	—6	150	36.0	4,300	16/–
	°TDD13C	DDT	7	13.0	0.2	200	—	27.0	2.0	—5	1,250	4.0	—	12/6
Osram	HD22	DDT	5	2.0	0.2	150	—	27	1.5	—3	—	1.8	—	9/–
	*MHD4	DDT	7	4.0	1.0	250	—	40	2.2	—4	1,000	4.2	—	12/6
	*DH42	DDT	7	4.0	0.6	250	—	70	1.2	—3	2,700	1.1	—	12/6
	*DH41	DDPen	7	4.0	2.3	250	250	—	10.0	—5	120	32.0	—	16/–
	*DH63	DDT	O	6.3	0.3	250	—	70	1.2	—3	3,000	0.6	—	12/6
	°DH30	DDT	7	13.0	0.3	250	—	80	4.5	—2.6	850	3.0	—	12/6
Record	DDTR2	DDT	5	2.0	0.1	135	—	30	1.4	—3	—	1.0	—	6/6
	*AC/DDTR	DDT	7	4.0	0.65	250	—	40	3.6	—5	1,000	4.0	—	10/6
	°DDTR/13	DDT	7	13.0	0.2	200	—	40	3.6	—5	1,000	4.0	—	10/6
	°DDTR/13L	DDT	8SC	13.0	0.2	200	—	40	3.6	—5	1,000	4.0	—	10/6
Triotron	DT215	DDT	5	2.0	0.1	135	—	16	1.5	—4½	—	2.5	—	6/6
	*DT436	DDT	7	4.0	0.65	250	—	27	3.6	—7	1,500	4.0	—	10/–
	*B430N	Diode Tetrode	7	4.0	1.0	200	33	—	0.3	—2½	800	3.0	—	13/6
	°DT1336	DDT	7	13.0	0.2	200	—	27	3.6	—5	1,000	4.0	—	10/–
	°B2030N	Diode-Tetrode	7	20.0	0.18	200	33	—	0.3	—2½	800	3.0	—	13/6
Tungsram	DDT2	DDT	5	2.0	0.1	135	—	30	1.4	—3	—	1.0	—	7/–
	DDT2B	DDT	5 & sc	2.0	0.1	135	—	16	1.0	—4½	—	2.5	—	7/–
	*DDT4	DDT	7	4.0	0.65	250	—	40	3.6	—5	1,000	4.0	—	12/6
	*DDPP4B	DDPen	7	4.0	2.0	250	250	—	9.5	—6	150	36.0	3,500	16/–
	*DDT6S	DDT	8SC	6.3	0.2	250	—	30	2.5	—5½	1,000	5.0	—	12/6
	°DDT13	DDT	7 & sc	13.0	0.2	200	—	40	3.6	—5	1,000	4.0	—	12/6
	°DDPP39	DPPen	7 & sc	35.0	0.2	200	200	—	8.5	—8	170	45.0	3,000	16/–
362	*ACHL4dd	DDT	7	4.0	1.0	250	—	38	2.5	—3	400	7.0	—	9/–
	*MP4	Split Anode Tetrode	—	4.0	1.0	—	—	—	—	—	—	—	—	13/–

DIODE VALVES

Maker.	Type.	Description.	Pins.	Fil. volts.	Fil. amps.	Max. diode volts.	Max. diode current.	Price.
Brimar	°10D1	DD	5	13.0	0.2	—	—	5/6
Cossor	220DD	DD	5	2.0	0.2	—	—	5/6
	*DD4	DD	5	4.0	0.75	—	—	5/6
	*DDL4	DD	5	4.0	0.75	—	—	5/6
Dario	*TB24	DD	5	4.0	0.65	200	0.8	4/6
Ever Ready	*A20B	DD	5	4.0	0.65	200	0.8	5/6
	°C20C	DD	5	13.0	0.2	200	0.8	5/6
Hivac	*AC/DD	DD	5	4.0	1.0	—	—	4/6
Marconi	*D41	DD	5	4.0	0.3	—	—	5/6
	*D63	DD	O	6.3	0.3	100	2.0	5/6
	*D42	D	4	4.0	0.6	75	15	10/–
Mazda	DD207	DD	4	2.0	0.075	—	—	5/6
	*V914	DD	5	4.0	0.3	—	1.0	5/6
	*DD620	DD	5	6.0	0.2	—	1.0	10/6
	*D1	D	—	4.0	0.2	—	50 Peak	5/6
Mullard	2D2	DD	5	2.0	0.09	125	0.5	5/6
	*2D4A	DD	5	4.0	0.65	200	0.8	5/6
	*2D4B	DD	7	4.0	0.35	200	0.8	5/6
	°2D13A	DD	sc-v	13.0	0.2	200	0.8	5/6
	°2D13	DD	sc-v	13.0	0.2	200	0.8	5/6
	°2D13C	DD	5	13.0	0.2	200	0.8	5/6
Osram	*D41	DD	5	4.0	0.3	—	—	5/6
	*D63	DD	O	6.3	0.3	—	—	5/6
	*D42	D	4	4.0	0.6	—	—	10/–
Ostar-Ganz	°B2	DD	7c	250	0.024	200	15.0	9/6
Record	*AC/DD4A	DD	5	4.0	0.65	200	0.8	4/–
	°DDA/13	DD	5	13.0	0.2	200	0.8	4/–
	°DDA/13L	DD	5sc	13.0	0.2	200	0.8	4/–
Triotron	*D400	DD	5	4.0	0.65	200	0.8	4/6
	°D1300	DD	5	13.0	0.2	200	0.8	4/6
Tungsram	*DD4	DD	5	4.0	0.65	200	0.8	4/6
	*D418	D	—	4.0	0.18	200	1.5	4/–
	*DD6DS	DD	8sc	6.3	0.2	200	0.8	5/6
	°DD13	DD	5&sc	13.0	0.2	200	0.8	4/6

(Continued on page viii.)

Valve Chart—Continued

GENERAL PURPOSE TRIODES

Maker.	Type.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Amp. factor.	Imped-ance.	Slope mA/v.	Bias volts.	Anode current.	Bias res. ohms.	Price.
Brimar	*HLA2	5	4.0	1.0	200	50	9,000	5.5	—2	8.0	400	9/6
	°4D1	7	13.0	0.2	200	40	10,000	4.0	—3	5.0	800	9/6
(Peanut)	4215A	—	1.1	0.25	45	6	25,000	—	—3	1.0	—	10/-
Cossor	210RC	4	2.0	0.1	150	40	50,000	0.8	—1½	0.85	—	4/9
	210HL	4	2.0	0.1	150	24	22,000	1.1	—3	1.6	—	4/9
	210HF	4	2.0	0.1	150	24	15,000	1.5	—3	1.6	—	4/9
	210DET	4	2.0	0.1	150	15	13,000	1.15	—4½	—	—	4/9
	210LF	4	2.0	0.1	150	14	10,000	1.4	—4½	4.8	—	4/9
	*41MH	5	4.0	1.0	200	72	18,000	4.0	—1½	3.2	—	9/6
	*41MRC	5	4.0	1.0	200	50	19,000	2.6	—2	2.7	750	14/-
	*41MHF	5	4.0	1.0	200	41	14,500	2.8	—3	3.0	1,000	14/-
	*41MHL	5	4.0	1.0	200	52	11,500	4.5	—3	4.0	750	9/6
	*41MLF	5	4.0	1.0	180	15	7,900	1.9	—5½	9.0	600	14/-
	*41MTA	5	4.0	1.0	200	72	18,000	4.0	—	—	—	9/6
	*41MTB	5	4.0	1.0	250	104	40,000	2.6	—	—	—	9/6
	*41MTL	5	4.0	1.0	500	—	—	—	—	—	—	9/6
	°DHL	5	16.0	0.25	260	58	13,000	4.5	—2	5.0	400	13/6
Dario	TB232	4	2.0	0.1	150	28	22,000	1.3	—3	2.0	—	3/6
	TB172	4	2.0	0.1	150	17	13,000	1.4	—4½	4.0	—	3/6
	TB102	4	2.0	0.1	150	10	8,000	1.25	—6	5.0	—	3/6
	*TE394	5	4.0	1.0	200	99	25,000	4.0	—1.6	0.5	2,000	8/6
	*TE384	5	4.0	1.0	200	38	25,000	1.5	—2½	2.0	1,000	8/6
	*TE244	5	4.0	1.0	200	24	10,000	2.4	—3½	6.0	660	8/6
Ever-Ready	K30K	4	2.0	0.1	135	30	21,500	1.4	—1½	2.2	—	4/9
	K30D	4	2.0	0.1	150	18	12,000	1.5	—4½	4.0	—	4/9
	K30E	4	2.0	0.1	135	18	12,000	1.5	—4½	2.0	—	4/9
	*A30B	5	4.0	0.65	200	72	20,600	3.5	—2	2.2	—	9/6
	*A30D	5	4.0	0.65	250	40	10,500	3.18	—4½	6.5	—	9/6
	°C30B	7	13.0	0.2	200	40	10,500	3.8	—3.7	5.0	—	9/6
Ferranti	*D4	5	4.0	1.0	200	40	12,500	3.3	—3	4.0	650	9/6
Hivac	XD	M	2.0	0.066	100	16	23,000	0.75	—1½	1.1	—	10/6
	XL	M	2.0	0.066	100	12	14,000	0.85	—3	2.5	—	10/6
	H210	4	2.0	0.1	150	25	22,000	1.15	—3	1.1	—	3/9
	D210	4	2.0	0.1	150	16	12,000	1.35	—4½	2.4	—	3/9
	D210SW	4	2.0	0.1	150	16	12,000	1.35	—4½	2.4	—	5/6
	L210	4	2.0	0.1	150	12	7,500	1.6	—6	4.2	—	3/9
	*AC/HL	5	4.0	1.0	200	35	10,000	3.5	—2.75	6.0	460	8/6
	°HL13	7	13.0	0.3	200	35	10,000	3.5	—2.75	6.0	460	8/6
Lissen	H2	4	2.0	0.1	150	50	45,000	1.1	—	—	—	4/9
	HL2	4	2.0	0.1	150	35	22,000	1.6	—	—	—	4/9
	L2	4	2.0	0.1	150	20	10,000	2.0	—	—	—	4/9
	*AC/HL	5	4.0	1.0	200	40	10,000	4.0	—	—	—	9/6
Marconi	H2	4	2.0	0.1	150	35	35,000	1.0	—1½	1.5	—	5/6
	HL2	4	2.0	0.1	150	27	18,000	1.5	—1½	2.0	—	4/9
	HL2/K	5	2.0	0.1	150	27	18,000	1.5	—1½	2.0	—	8/6
	L21	4	2.0	0.1	150	—	8,900	1.8	—4½	4.0	—	4/9
(Deaf Aid)	H11	sc	1.0	0.1	100	15	30,000	0.5	0	—	—	15/-
(Do.)	L11	sc	1.0	0.1	100	4.4	7,700	0.57	0	—	—	15/-
	*H42	7	4.0	0.6	250	100	66,000	1.5	—2	1.0	—	9/6
	*MH41	5	4.0	1.0	200	80	13,300	6.0	—3	—	—	9/6
	*MH4	5	4.0	1.0	200	40	11,100	3.6	—6	—	—	9/6
	*MHL4	5	4.0	1.0	200	20	8,000	2.5	—6	8.0	850	13/6
	*ML4	5	4.0	1.0	200	12.0	2,860	4.2	—3	—	400	10/-
	*H63	O	6.3	0.3	250	100	66,000	1.5	—2	—	—	9/6
	*MH40	5	4.0	1.0	200	45	18,000	2.5	—	—	—	50/-
	*A537	s0	4.0	0.4	150	15.5	10,000	1.55	—	—	—	50/-
	*A577	4	4.0	1.0	250	6	3,000	2.0	—	—	—	60/-
(Acorn)	*HA1	Sp	4.0	0.25	180	20	11,800	1.7	—	—	—	50/-
	°H30	7	13.0	0.3	250	80	13,300	6.0	—3	—	—	12/6
	°L30	7	13.0	0.3	250	12	2,860	4.2	—	400	—	14/-
	ET1	4	1.0	0.1	4—10	—	—	0.08	—	—	—	85/-
Mazda	HL2	4	2.0	0.1	150	32	21,000	1.5	—1½	2.7	—	4/9
	L2	4	2.0	0.1	150	19	10,000	1.9	—3	5.3	—	4/9
	*AC/HL	5	4.0	1.0	200	35	11,700	3.0	—3½	5.0	—	9/6
	*AC2/HL	5	4.0	1.0	200	—	11,500	6.5	—1.75	4.9	—	9/6
	°HL1320	7	13.0	0.2	250	30	10,000	3.0	—4½	7.5	—	9/6
(Acorn)	*A40	Sp	4.0	0.25	200	25	—	2.0	—	—	—	50/-
Mullard	PM1A	4	2.0	0.1	150	50.0	41,600	1.2	—1	1.0	—	4/9
	PM1HF	4	2.0	0.1	150	18.0	22,500	0.8	—4½	1.5	—	4/9
	PM1HL	4	2.0	0.1	135	28.0	23,400	1.4	—1½	2.3	—	4/9
	PM2HL	4	2.0	0.1	135	30.0	21,500	1.4	—1½	2.2	—	4/9
	PM1LF	4	2.0	0.1	150	11.0	12,000	0.9	—7½	4.0	—	4/9
	PM2DX	4	2.0	0.1	135	18.0	18,000	1.0	—4½	2.0	—	4/9
	PM2DL	4	2.0	0.1	135	18.0	12,000	1.5	—4½	2.0	—	4/9
(Deaf Aid)	DA1	4	2.0	0.05	40	32.0	80,000	0.4	—½	0.25	—	15/-
(Do.)	DA2	4	2.0	0.05	40	7.0	13,600	0.5	—2.15	1.25	—	15/-
	*994V	5	4.0	0.65	200	125.0	35,000	3.6	—1½	1.35	1,000	13/6
	*904V	5	4.0	0.65	200	72.0	20,600	2.0	—2	2.2	900	9/6
	*484V	5	4.0	1.0	200	48.0	21,800	2.2	—3	2.8	1,000	13/6
	*354V	5	4.0	0.65	250	40.0	11,500	3.5	—4½	6.5	700	9/6
	*244V	5	4.0	0.65	200	25.0	9,000	2.8	—5½	5.5	1,000	13/6
	*164V	5	4.0	0.65	200	16.0	4,700	3.4	—8½	12.0	750	14/-
	*154V	4	4.0	0.65	200	15.0	7,500	2.0	—7½	9.0	800	14/-
	°HL13	sc—P	13.0	0.2	200	40.0	12,000	3.2	—3.7	5.0	740	13/6
	°HL13C	7	13.0	0.2	200	40.0	12,000	3.3	—3.7	5.0	740	9/6
(Acorn)	*AT4	7	4.0	0.25	200	25.0	12,500	2.2	—6	4.5	—	50/-
Osram	HL2	4	2.0	0.1	150	27	18,000	1.5	—3	1.8	—	4/9
	L21	4	2.0	0.1	150	16	8,900	1.8	—6	2.2	—	4/9
	*H42	7	4.0	0.6	250	100	66,000	1.7	—2	1.0	2,000	9/6
	*MH41	5	4.0	1.0	250	80	13,300	6.0	—2½	3.6	700	9/6
	*MH4	5	4.0	1.0	250	40	11,000	3.6	—4	5.0	800	9/6
	*MHL4	5	4.0	1.0	250	20	8,000	2.5	—8	7.6	1,000	13/6
	*H63	O	6.3	0.3	250	100	66,000	1.5	—2	1.0	2,000	9/6
	*A537	sc	4.0	0.4	150	15.5	10,000	1.55	—6	3.3	—	50/-
	*MH40	5	4.0	1.0	200	45	18,750	2.4	—3	2.7	—	50/-
(Acorn)	*HA1	7	4.0	0.25	180	20	11,800	1.7	—6½	4.5	—	50/-
	°H30	7	13.0	0.3	250	80	13,300	6.0	—1½	7.0	250	12/6
Ostar-Ganz	°D130	7c	250.0	0.24	300	100	40,000	3.5	—1	2.0	500	13/9
	°A520	5&7c	250.0	0.24	300	22	8,800	2.5	—4½	4.0	1,000	13/6
Pix	2	4	2.0	0.1	150	20	12,000	0.9	—4	1.5	—	2/6
	3	4	2.0	0.1	150	11	10,000	0.9	—7½	3.4	—	2/6
	4	4	2.0	0.1	150	33	37,000	0.9	—1½	1.0	—	2/6
	210	4	2.0	0.1	150	20	22,000	0.9	—4	1.2	—	2/6
	*90/AC	—	4.0	1.0	200	40	23,000	1.7	—1½	3.0	500	8/6
	*100/AC	—	4.0	1.0	200	15	7,500	2.0	—6	5.0	1,200	9/6
Record	H2	4	2.0	0.1	200	30	23,000	1.3	—3	1.0	—	3/3
	L2	4	2.0	0.12	150	17	15,000	1.2	—5	3.2	—	3/3
	DL2	4	2.0	0.1	150	18	14,000	1.3	—4½	3.0	—	3/3
	*AC/NHL	5	4.0	0.65	250	33	11,000	3.5	—4½	5.0	1,000	7/6
	°NHL/13	7	13.0	0.2	200	30	12,000	3.5	—4.0	6.0	1,000	7/6
	°NHL/13L	8sc	13.0	0.2	200	30	12,000	3.5	—4.0	6.0	1,000	7/6
Triotron	WD2	4	2.0	0.08	200	25	25,000	1.0	—2½	1.0	—	3/6
	W213	4	2.0	0.1	150	28	24,000	1.2	—2	1.5	—	3/6
	HD2	4	2.0	0.08	200	15	15,000	1.1	—5	5.0	—	3/6
	SD2	4	2.0	0.1	200	18	12,000	1.5	—5	6.0	—	3/6
	A214	4	2.0	0.1	150	20	10,000	2.0	—3	5.0	—	3/6
	TD2	4	2.0	0.08	150	9	10,000	0.9	—7	7.0	—	3/6
	*A440N	5	4.0	1.0	200	120	30,000	4.0	—1½	0.5	2,000	7/6
	*W415N	5	4.0	1.0	200	35	23,000	1.5	—3	2.5	1,000	7/6
	*A430N	5	4.0	1.0	200	30	8,300	3.0	—3½	6.0	600	7/6
	°A2040N	5	20.0	0.18	200	100	25,000	4.0	—1½	0.5	1,000	7/6
Tungsram	HR2	4 & sc	2.0	0.06	135	25	40,000	0.6	—1½	1.2	—	3/9
	HR210	4	2.0	0.1	200	30	23,000	1.3	—3	1.0	—	3/9
	LD210	4	2.0	0.1	150	18	14,000	1.3	—4½	3.0	—	3/9
	LL2	4 & sc	2.0	0.2	135	30	11,500	2.6	—2½	3.0	—	3/9
	*HL4+	5	4.0	0.65	250	33	11,000	3.5	—4½	5.0	1,000	9/6
	*HL4G	7	4.0	0.65	250	33	11,000	3.5	—4½	5.0	1,000	9/6
	°HL13	7 & sc	13.0	0.2	200	40	12,000	3.5	—5½	6.0	1,000	9/6
362	H2	4	2.0	0.1	150	32	32,000	1.0	—1½	2.0	—	3/6
	HL2	4	2.0	0.1	150	24	16,000	1.5	—3	3.0	—	3/6
	L2	4	2.0	0.1	150	15	12,000	1.2	—4½	3.0	—	3/6
	SR2	4	2.0	0.3	200	—	—	—	—	10.0	—	5/-
	*ACHL4	5	4.0	1.0	250	33	10,000	3.3	—4	4.0	1,000	7/6
	*SR4	5	4.0	1.0	300	—	—	—	—	30.0	—	10/-

TUNING INDICATORS

Maker.	Name.	Pins.	Type.	Operation Characteristics.	Price.
Brimar	Tunograph	—	Cathode ray	Fil. 1.0 amp., 0.6 volts ; min. plate volts 180	17/6
Cossor	3180	Special	Neon	145-160v., to maintain striking	4/-
	3184	Special	Neon	145-160v. to maintain striking	4/-
Ever Ready	A39A	—	—	Fil. 4v., 0.3A ; max. anode 250v.	10/6
Marconi	Y63	O	Cathode ray	Filament 6.3v., 0.3A ; target and anode, 250v	10/6
Mazda	AC/ME	7	Cathode ray	Heater, 4v, 0.5a ; max. anode and target volts, 250	10/6
	ME920	7	Do.	Heater, 9v, 0.2a ; max. anode and target volts, 250	10/6
Mullard	*TV4	Sc-P	Do.	Fil. 4v, 0.3a ; anode, 250v.	10/6
	°TV6	Sc-P	Do.	Fil. 6.3v, 0.2a ; anode, 250v	10/6
Osram	Tuneray	O	Do.	Fitted 6.3 volt heater to match International range	10/6
Tungsram	VME4	7A	Do.	Fil. 4v, 0.5a ; max. anode and target, 250v (through 1 meg)	10/6
	ME4S	8Sc	Do.	Fil. 4v, 0.3a ; max. anode and target, 250v (through 1 meg)	10/6
	ME6S	8Sc	Do.	Fil. 6.3v, 0.2a ; max. anode and target, 250v. (through 1 meg)	10.6

ALL-STAGE VALVE

Maker.	Type.	Pins.	Fil. volts.	Fil. amps.	Use.	Anode volts.	Screen volts.	Bias volts.	Slope mA/v.	Anode current m.a.	Screen current m.a.	Output m/w.	Price.
Hivac	A15	O	15.0	0.3	Frequency changer.	250	90	—6	0.48	2.0	8.5	—	13/6
					H.F.	250	90	—6	1.2	5.0	2.7	—	
					L.F.	400	250	—14	—	34.0	22.0	6,500	
					Detector	130	40	—5	—	3.0	2.0	—	

Valves for the L.F. sections of a receiver, metal rectifiers, cathode, ray tubes and American valves are to be detailed in a subsequent issue.

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"The Broadcaster" Classified Valve Chart

THIS second section of THE BROADCASTER Checked Valve Chart contains details of output valves, rectifiers and Westinghouse metal rectifiers. With the H.F. section given last week valves generally used in a receiver have now been dealt with.

In subsequent issues details will be given concerning cathode ray tubes, barretters, gas-filled relays, and American valves, which have been given a separate section this year. In all, there will be seventeen groups.

In each section dealing with British types, valves are grouped under makers' names, and are then subdivided into directly heated, A.C. and A.C.-D.C. types.

The following abbreviations are used: * indicates indirectly heated A.C.; ** directly heated A.C.; ° indicates A.C.-D.C. In the pins column, SC means side contact base, O octal, A American, C Continental, Sp special, and M midget. In the H.T. Rectifying Valve section, VD denotes voltage doubler.

DOUBLE OUTPUT VALVES

Maker.	Type.	Circuit.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Screen volts.	Quiescent current.	Peak current.	Bias volts.	Output m/w.	Optimum load.	Price.
Cossor	220B	Class B	7	2.0	0.2	120	—	1.25	35.0	0	1,250	12,000	11/-
	240B	Class B	7	2.0	0.4	150	—	2.0	50.0	0	2,000	8,000	11/-
	240QP	QPP	7	2.0	0.4	150	—	1.75	—	—	—	24,000	17/6
Dario	TB402	Class B	7	2.0	0.2	150	—	3.0	35.0	0	1,200	18,000	9/6
Ever-Ready	K33A	Class B	7	2.0	0.2	150	—	3.0	—	0	1,450	14,000	11/-
	K33B	Class B	7	2.0	0.2	150	—	3.0	—	—4½	1,500	14,000	11/-
	K77A	QPP	9	2.0	0.45	150	150	4.0	—	—13½	2,000	16,000	17/6
Hivac	B230	Class B	7	2.0	0.3	150	—	2.5	32.0	0	1,250	14,500	9/6
	DB240	Driver / Class B	7	2.0	0.4	120 / 150	— / —	3.0 / 2.5	3.0 / 32.0	—4½ / 0	— / 1,250	— / 14,500	15/6
	QP240	QPP	7	2.0	0.4	150	150	8.0	32.0	—18	1,400	14,500	17/6
Lissen	B2	Two in Class B	4	2.0	0.1	150	—	—	—	—	2,000	—	8/-
	BB240	Class B	7	2.0	0.4	150	—	—	—	—	2,400	—	11/-
Marconi	QP21	QPP	7	2.0	0.4	150	150	—	—	—9	1,200	24,000	17/6
	B21	Class B	7	2.0	0.2	150	—	2.2	—	—6	1,500	12,000	12/6
	°B30	Class B	7	13.0	0.3	180	—	—	—	0	5,000	7,000	35/-
Mazda	PD220	Class B	7	2.0	0.2	150	—	0.8	—	—1.15	2,850	11,500	11/-
	PD220A	Class B	7	2.0	0.2	150	—	2.5	—	—6	2,900	10,000	11/-
	QP240	QPP	9	2.0	0.4	150	130	4.0	—	—11½	2,250	15,000	17/6
	QP230	QPP	7	2.0	0.3	120	120	4.65	—	—9.6	850	17,000	17/6
Mullard	PM2B	Class B	7	2.0	0.2	120	—	3.0	20.0	0	1,250	14,000	11/-
	PM2BA	Class B	7	2.0	0.2	120	—	3.0	20.0	—4½	1,450	14,000	11/-
	QP22A	QPP	9	2.0	0.45	135	135	2.5-3	—	—10½	1,400	16,000	17/6
Osram	QP21	QPP	7	2.0	0.4	150	150	3.5	—	—9	1,000	25,000	17/6
	B21	Class B	7	2.0	0.2	150	—	2.2	—	—6	2,000	12,000	12/6
Record	BB2A	Class B	7	2.0	0.25	150	—	2.5	—	—3	2,000	10,000	9/-
	BB2B	Class B	7	2.0	0.25	135	—	—	—	0	1,700	10,000	9/-
Triotron	E220B	Class B	7	2.0	0.3	150	—	3.0	32.0	0	1,350	18,000	9/6
Tungsram	CB215	Class B	7 & Sc	2.0	0.22	135	—	—	—	0	1,700	—	11/-
	CB220	Class B	7	2.0	0.25	150	—	2.5	—	—3	2,000	10,000	11/-
362	BA2	Class B	7	2.0	0.2	150	—	1.5	—	0	1,500	10,000	9/-
	Bx2	Class B	7	2.0	0.4	150	—	1.5	—	0	1,500	10,000	—

POWER OUTPUT TRIODES

Maker.	Type.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Impedance.	Slope mA/V.	Bias volts.	Anode current.	Bias res. ohms.	Output, m/w.	Optimum load.	Price.
Brimar	*PA1	5	4.0	1.0	200	1,050	12.0	—9	50.0	260	1,250	4,000	12/6
Cossor	215P	4	2.0	0.15	150	4,000	2.25	—7½	10.0	—	150	9,000	6/-
	220P	4	2.0	0.2	150	4,000	2.25	—7½	11.0	—	190	9,000	6/-
	220PA	4	2.0	0.2	150	4000	4.0	—4½	10.0	—	180	9,000	6/-
	230XP	4	2.0	0.3	150	1.500	3.0	—18	22.0	—	450	3.500	10/-
	*41MP	5	4.0	1.0	200	2,500	7.5	—7½	24.0	320	1,250	3,000	10/-
	*41MXP	5	4.0	1.0	200	1,500	7.5	—12½	40.0	300	2000	2,000	12/6
	**4XP	4	4.0	1.0	250	900	7.0	—28½	48.0	600	3,000	3,000	12/6
	°DP	5	16 0	0.25	200	2,800	6,0	—7½	25.0	300	—	3,500	14/-
	°402P	7	40.0	0.2	200	1,330	7.5	—9½	30.0	320	—	2,500	12/6

Maker.	Type.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Impedance.	Slope mA/V.	Bias volts.	Anode current.	Bias res ohms.	Output, m/w.	Optimum load.	Price.
Dario	TB052	4	2.0	0.15	150	4,200	1.2	—18	7.0	—	150	11,000	4/6
	TB122	4	2.0	0.2	150	3,600	3.5	—4½	6.0	—	350	8,000	4/6
	TB062	4	2.0	0.33	150	3,000	2.0	—10½	13.0	—	1,550	6,000	4/6
	TB032	4	2.0	0.2	150	2,000	1.5	—30	12.0	—	500	6,000	4/6
	*TE094	5	4.0	1.0	200	3,000	1.3	—16	15.0	1,000	350	10,000	8/6
Ever Ready	*S30C	4	4.0	1.0	250	950	6.8	—29	48.0	600	2.700	2,500	12/6
	S30D	4	2.0	2.0	250	950	6.8	—29	48.0	600	2,700	2.500	12/6
Ferranti	*LP4	4	4.0	1.0	250	—	6.0	—35	48.0	—	2,800	2,500	12/6
Hivac	XP	M	2.0	0.066	100	5,000	1.0	—9	4.5	—	—	10,000	12/6
	P215	4	2.0	0.15	150	3,600	2.2	—12	8.0	—	150	10,000	4/9
	P220	4	2.0	0.2	150	4,700	3.0	—7½	6.0	—	175	9,000	5/6
	PP220	4	2.0	0.2	150	2,300	3.0	—12	12.5	—	250	5,000	6/6
	PX230	4	2.0	0.3	150	1,850	3.5	—15	17.5	—	450	4,000	7/6
	PX230SW	4	2.0	0.3	150	1,850	3.5	—15	17.5	—	450	4,000	12/-
	*AC/L.	5	4.0	1.0	200	2,350	4.25	—13½	17.0	760	675	6,300	8/6
	**PX41	4	4.0	1.0	250	830	6.0	—40	48.0	830	2,500	3,500	12/6
	**PX5	4	4.0	2.0	400	1,480	6.5	—34	62.5	530	5,750	3,000	20/-
Lissen	LP2	4	2.0	0.2	150	3,500	3.5	—	—	—	200	—	6/-
	P220	4	2.0	0.2	150	4,000	1.75	—	—	—	100	—	6/-
	PX240	4	2.0	0.4	200	1,500	3.0	—	—	—	800	—	10/-
Marconi	LP2	4	2.0	0.2	150	3,900	3.85	—6	7.0	—	150	9,700	6/-
	P2	4	2.0	0.2	150	2,150	3.5	—10½	19.0	—	300	4,500	10/-
	**PX4	4	4.0	1.0	300	835	6.0	—42	50.0	850	3,500	3,500	12/6
	**PX25	4	4.0	2.0	400	1,265	7.5	—30	62.5	475	5,500	4,000	25/-
	**PX25A	4	4.0	2.0	400	580	6.9	—103	62.5	1,630	8.400	4.500	25/-
	**DA30	4	4.0	2.0	500	910	3.85	—145	Varies with signal	—	44,000	3,400P	30/-
	**DA60	4	6.0	4.0	500	—	—	—135	120.0	1,100	—	2,800	110/-
	**DA100	4	6.0	2.7	1,000	1,410	3.9	—146	100.0	1,500	30,000	6,700	210/-
	**DET5	4	4.0	2.0	600	1,265	7.5	—	—	—	—	—	35/-
	[P = Per pair in low load circuits.]												
Mazda	P220	4	2.0	0.2	150	3,700	3.4	— 7	5.5	—	160	10,000	6/-
	P220A	4	2.0	0.2	150	1,850	3.5	—14	15.0	—	350	4,100	10/-
	*AC/P	5	4.0	1.0	200	2,650	3.75	—13½	17.0	800	650	6,000	10/-
	*AC/P1	5	4.0	1.0	200	1,450	3.7	—28	24.0	1,200	1.000	5,000	12/6
	*AC/P4	5	4.0	1.0	600	2,850	7.0	—	—	—	—	—	17/6
	**PA20	4	2.0	2.0	300	1,000	6.5	—36	48.0	750	4,200	3,000	12/6
	**PA40	4	4.0	2.0	450	—	4.25	[P.—96½	110.0	—	43,000	4,000]	30/-
	**PP3/250	4	4.0	1.0	300	1,000	6.5	—36	48.0	775	4,200	3,000	12/6
	**PP5/400	4	4.0	2.0	400	1,500	6.0	—32	62.5	510	5,900	2,700	25/-
	°PP3521	7	35.0	0.2	200	600	10.0	—25	70.0	360	2,300	2,000	12/6
	[P = Per pair in push pull.]												
Mullard	PM2A	4	2.0	0.2	135	6,000	2.0	—6	5.0	—	150	7,000	6/-
	PM2	4	2.0	0.2	150	4,400	1.7	—12	6.6	—	150	9,000	6/-
	PM202	4	2.0	0.2	150	2,000	3.5	—15	14.0	—	350	3,700	10/-
	*TT4	5	4.0	1.0	250	3,300	3.2	—16	20.0	800	500	10,000	10/-
	**AC104	4	4.0	1.0	200	2,850	3.5	—14	11.0	1,500	400	6,000	16/-
	**AC064	4	4.0	1.0	200	2,000	3.0	—21	20.0	1,000	620	5,000	16/-
	**AC044	4	4.0	1.0	250	950	5.0	—29	48.0	600	2,700	2,500	12/6
	**AC042	4	2.0	2.0	250	950	5.0	—29	48.0	600	2,700	2,500	12/6
	**D010	4	6.0	0.85	400	2,850	0.85	—130	25.0	5,500	2,500	6,000	25/-
	**D020	4	7.5	1.1	425	2,000	2.5	—66	40.0	1,650	5,000	5,000	30/-
	**D024	4	4.0	2.0	400	2,500	4.0	—34	63.0	540	5,900	2,500	25/-
	**D025	4	6.0	1.1	400	800	3.75	—112	63.0	1,780	7,000	4,000	30/-
	**D026	4	4.0	2.0	400	950	3.8	—92	63.0	1,500	7,500	3,000	25/-
Osram	*ML4	5	4.0	1.0	250	—	4.2	—14	20.0	700	—	7,000	10/-
	**PX4	4	4.0	1.0	300	830	6.0	—42	50.0	900	3,500	4,000	12/6
	**PX25	4	4.0	2.0	400	1,265	7.5	—33	62.5	530	5.500	3,200	25/-
	**PX25A	4	4.0	2.0	400	580	6.9	—102	62.5	1,630	8,400	4,500	25/-
	**DA30	4	4.0	2.0	500	580	6.9	—130	60.0	2,150	11,000	4,000	30/-

(Continued on page v.)

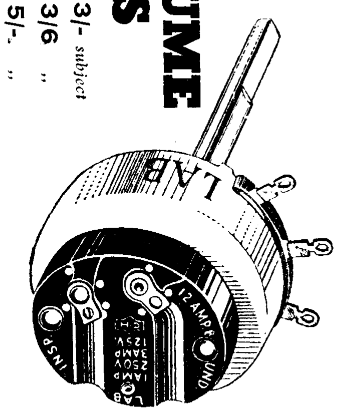
Power Output Triodes—continued

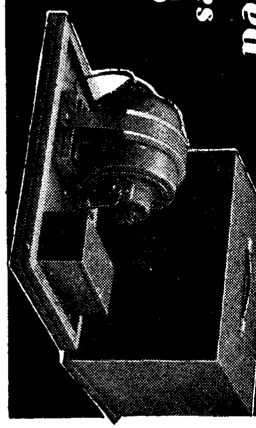
Maker.	Type.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Imped-ance.	Slope mA/V.	Bias volts.	Anode current.	Bias res. ohms.	Output, m/w.	Opti-mum load.	Price.
Osram (contd.)	**DA100 ..	Sp.	6.0	2.7	1,000	1,410	3.9	—149	100.0	1,490	30,000	6,700	210/-
	°L30	7	13.0	0.3	250	2,860	4.2	—14	20.0	700	—	7,000	14/-
Ostar-Ganz	°K2050 ..	5	250.0	0.044	300	1,000	5.0	—40	40.0	1,000	3,000	2,500	19/6
	°K3560 ..	5	250.0	0.044	220	500	6.0	—50	50.0	1,000	3,000	1,200	19/6
	°U920	5	250.0	0.044	300	3,700	3.0	—14	7.0	—	1,500	—	13/6
Pix ..	20	4	2.0	0.15	150	4,600	1.2	—14	5.0	—	150	—	4/6
	210	4	2.0	0.2	150	3,900	1.1	—11	12.0	—	200	—	6/6
	*AC/4P ..	5	4.0	1.0	200	3,600	2.5	—11	—	—	—	—	10/6
Record ..	LP2	4	2.0	0.2	150	3,900	3.5	—6	5.0	—	200	7,500	4/3
	P2	4	2.0	0.15	150	3,300	1.5	—12	10.0	—	260	7,000	4/3
	SP2	4	2.0	0.2	150	2.200	3.0	—18	14.0	—	360	6,700	4/3
	*AC/PX4 ..	4	4.0	1.0	250	850	6.0	—33	48.0	700	2,800	2,400	9/6
Triotron	ZD2	4	2.0	0.15	150	5,000	1.0	—15	10.0	—	150	13,000	4/6
	YD2	4	2.0	0.22	200	4,500	2.0	—11	16.0	—	250	10,000	4/6
	E235	4	2.0	0.33	200	3,000	3.0	—12	18.0	—	550	8,000	4/6
	UD2	4	2.0	0.22	150	2,000	2.0	—15	15.0	—	500	5,000	4/6
	SP2	4	2.0	0.33	150	1,500	2.0	—28	18.0	—	500	3,500	4/6
	*E430N ..	5	4.0	1.0	200	3,000	3.0	—15	15.0	1,000	350	10,000	7/6
	**E425 ..	4	4.0	0.3	250	2,500	2.0	—32	20.0	1,600	1,000	3,000	6/-
	**K480 ..	4	4.0	2.0	550	1,250	8.0	—36	45.0	800	5,000	3,500	20/-
	**K450/50 ..	4	4.0	3.0	400	1,250	4.0	—50	120.0	500	12,000	1,500	40/-
	**K435/10 ..	4	4.0	0.65	250	1,000	3.5	—40	40.0	1,000	2,500	1,500	10/-
Tungsram	LP220 ..	4	2.0	0.2	150	3,900	3.5	—6	5.0	—	200	7,500	4/9
	P215	4	2.0	0.15	150	3,300	1.5	—12	12.0	—	260	7,000	4/9
	SP220 ..	4	2.0	0.2	150	2,200	3.0	—15	15.0	—	360	6,700	4/9
	**P12/250 ..	4	4.0	0.95	250	850	6.0	—34	48.0	700	2,750	3,200	12/6
	**P15/250 ..	4	4.0	0.95	250	670	6.0	—44	60.0	750	4,200	3,500	14/-
	**O15/400 ..	4	4.0	1.1	500	1,800	5.0	—37	40.0	900	3,500	6,000	12/6
	**P25/500 ..	4	6.0	1.1	500	1,000	3.0	—104	65.0	1,700	4,500	4,500	20/-
	**P26/500 ..	4	4.0	2.0	500	530	7.0	—100	62.5	1,600	6,300	5,000	20/-
	**P27/500 ..	4	4.0	2.0	500	1,050	8.5	—33	62.5	510	4,700	5,600	20/-
	**P60/500 ..	Sp.	6.0	4.0	900	1,000	3.5	—280	90.0	1,200	15,000	2,600	88/-
	**P25/450 ..	4	7.5	1.25	450	1,800	2.1	—84	55.0	1,500	4,600	4,300	20/-
	**PX2100 ..	4	7.5	1.25	425	5,000	1.6	—39	18.0	2,000	1,600	10,200	22/6
362 ..	LP2 ..	4	2.0	0.2	200	5,000	3.0	—9	8.0	—	500	10,000	4/-
	P2	4	2.0	0.2	200	3,000	3.0	—15	13.0	—	1,000	6,000	4/6
	*ACPX4 ..	5	4.0	1.0	250	2,000	4.0	—18	30.0	600	2,500	3,000	9/-
	**ACPX4A..	4	4.0	1.0	250	1,200	5.0	—25	50.0	500	3,000	2,500	9/-
	**PX25 ..	4	4.0	2.0	500	1,800	4.5	—40	50.0	800	6,000	5,000	20/-
	**PX25A ..	4	4.0	2.0	400	1,400	3.5	—50	60.0	800	7,000	3,000	20/-
	**P625 ..	4	6.0	0.25	350	2,000	2.5	—50	50.0	1,000	1,500	5,000	8/-
	**PX50 ..	4	6.0	2.0	500	800	5.0	—70	100.0	790	13,000	7,500	50/-
	**PX100 ..	4	6.0	3.0	1,000	1,200	5.0	—140	100.0	1,400	35,000	7,000	100/-

OUTPUT PENTODES AND TETRODES

Maker.	Type	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Screen volts.	Slope mA/v.	Bias volts.	Bias res. ohms.	Anode and screen current.	Output m/w.	Opti-mum load.	Price.
Brimar ..	PenB1 ..	5	2.0	0.2	150	150	2.5	—4½	—	9.8	500	18,000	11/-
	*7A2	5 & 7	4.0	1.2	250	250	3.2	—17	330	40.0	3,000	8,000	13/6
	*7A3	7	4.0	2.0	250	250	10.0	—6	150	40.0	3,800	8,500	13/6
	**PenA1 ..	5	4.0	1.0	250	250	3.0	—16½	450	40.0	2,800	8,000	13/6
	°7D5	7	13.0	0.35	315	315	2.6	—20	440	50.0	7,000	7,000	13/6
	°7D8	7	13.0	0.6	250	250	10.0	—6	150	40.0	3,800	8,500	13/6
	°7D3	7	40.0	0.2	180	135	2.5	—20	440	45.5	4,000	5,000	13/6
	°7D6	7	40.0	0.2	250	250	10.0	—6	150	40.0	3,800	8,500	13/6
Cossor ..	220PT ..	4 & 5	2.0	0.2	150	150	2.5	—9	—	23	—	7,500	13/6
	220HPT ..	4 & 5	2.0	0.2	150	150	2.5	—4½	—	9.5	—	20,000	11/-
	230PT ..	4 & 5	2.0	0.3	150	150	2.0	—15	—	17	—	10,000	16/6
(Tetrode)	220OT ..	5	2.0	0.2	150	150	2.5	—4½	—	—	—	20,000	11/-
	*MP/PEN ..	5 & 7	4.0	1.0	250	250	3.5	—16	450	36	—	10,000	13/6
	*42MP/PEN	7	4.0	2.0	250	250	7.0	—5½	140	38	—	8,000	13/6
	*41MPT ..	7	4.0	1.0	250	200	4.8	—	—	—	—	—	13/6
	*42MPT ..	7	4.0	2.0	250	250	7.0	—	—	—	—	—	15/-
(Split anode).	*41MTS ..	7	4.0	1.0	250	100	1.6	—	—	—	—	—	20/-
(Tetrode)	*42OT ..	7	4.0	2.0	250	250	7.0	—5½	130	—	—	6,500	13/6
	°DPPen ..	7	16.0	0.25	250	250	3.5	—10	300	—	—	10,000	18/6
	°402Pen ..	7	40.0	0.2	250	250	7.0	—6.7	140	—	—	5,500	13/6
	°40PPA ..	7	40.0	0.2	150	150	4.0	—25	600	42	—	4,000	13/6
(Tetrode)	°4020T ..	7	40.0	0.2	250	250	7.0	—12	140	—	—	5,500	13/6
	**PT41 ..	5	4.0	1.0	250	200	3.0	—12½	350	36	—	8,000	13/6
	**PT41B ..	5	4.0	1.0	400	300	2.25	—40	1,200	36	—	8,000	22/6
Dario ..	TC432 ..	4 & 5	2.0	0.2	150	150	2.0	—4½	—	11.5	350	15,000	10/-
	*TE534 ..	5 & 7	4.0	1.1	250	250	3.5	—15	650	29.0	2,000	7,500	12/6
	*TE634 ..	7	4.0	1.35	250	250	4.0	—22	500	42.0	3,500	7,000	12/6
	*TL34	7	4.0	1.1	200	200	9.5	—6	200	33.3	3,500	7,000	12/6
	°TB4320 ..	8	20.0	0.2	200	100	8.0	—19	400	40.0	3,500	5,000	12/6
	°TL413 ..	7	33.0	0.2	250	250	7.5	—13	320	40.5	4,000	7,000	12/6
Ekco ..	*OP41 ..	7	4.0	1.8	300	250	9.0	—13	200	66.0	8,000	4,000	25/-
	*OP42 ..	7	4.0	1.8	250	250	11.0	—6	145	36.5	3,800	8,000	13/6

(Continued on page vi.)





Output Pentodes and Tetrodes—continued

Maker.	Type	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Screen volts.	Slope mA/v.	Bias volts.	Bias res. ohms.	Anode and screen current.	Output m/w.	Optimum load.	Price.
Ever Ready	K70B	4 & 5	2.0	0.15	135	135	2.5	—4½	—	—	—	20,000	11/–
	K70D	5	2.0	0.3	135	135	4.0	—2.4	—	—	—	24,000	11/–
	*A70B	7	4.0	1.15	250	250	3.5	—22	—	—	—	6,000	13/6
	*A70D	7	4.0	1.95	250	250	10.0	—5.8	—	—	—	8,000	13/6
	*A70E	7	4.0	2.1	250	275	8.1	—14	—	—	—	3,500	18/6
	°C70D	7	35.0	0.2	200	200	8.0	—9	—	—	—	4,000	13/6
Ferranti	*PT4D	7	4.0	2.0	250	—	8.2	—6	—	—	3,600	6,500	16/–
Hivac	XY	SP	2.0	0.14	100	100	1.25	—6	—	6.6	—	15,000	15/6
(Tetrode)	Y220	4 & 5	2.0	0.2	150	150	2.5	—4½	—	11.8	500	11,500	9/6
(Do.)	Z220	4 & 5	2.0	0.2	150	150	2.5	—6	—	20.1	1,000	7,500	9/6
(Do.)	*AC/Y	5 & 7	4.0	1.0	250	250	3.5	—10	300	36.3	3,000	6,500	11/6
(Do.)	*AC/YY	7	4.0	2.0	250	250	7.5	—10	140	78.0	5,000	3,000	25/–
(Do)	*AC/Z	5 & 7	4.0	2.0	250	250	8.0	—5½	160	36.3	3,000	6,500	11/6
(Do.)	*AC/Q	7	4.0	1.35	375	250	6.0	—22	370	59.5	11,500	4,000	18/6
(Do.)	*AC/Qa	O	6.3	0.9	375	250	6.0	—22	370	59.5	11,500	4,000	18/6
(Do.)	**FY	5	4.0	1.0	250	250	5.0	—10	250	38.0	3,000	6,000	11/6
(Do.)	°Y13	7	13.0	0.3	250	250	4.0	—22	550	39.5	3,000	4,000	11/6
(Do.)	°Z26	7	26.0	0.3	250	250	8.0	—11	250	44.0	3,000	4,000	11/6
Lissen	PT225	4 & 5	2.0	0.2	150	150	1.6	—	—	—	300	—	11/–
	PT240	4 & 5	2.0	0.4	200	150	2.3	—	—	—	1,000	—	11/–
	PT2A	4 & 5	2.0	0.2	150	150	2.5	—	—	—	1,100	—	11/–
	PT425	4 & 5	4.0	0.25	200	150	2.3	—	—	—	1,000	—	17/6
	PT611	4	6.0	0.11	150	150	1.4	—	—	—	300	—	16/–
	*AC/PT	5 & 7	4.0	1.0	250	250	4.0	—	—	—	2,500	—	13/6
Marconi	KT21	5	2.0	0.3	150	150	5.3	—2½	—	6.4	500	19,000	11/–
(Tetrode)													
(Do.)	KT2	5	2.0	0.2	150	150	2.5	—4½	—	9.2	500	—	11/–
(Do.)	**MKT4	5 & 7	4.0	1.0	250	225	3.0	—10½	280	37.5	3,500	8,000	13/6
(Do.)	**KT41	7	4.0	1.0	250	250	10.5	—3½	90	40.0	4,500	7,800	13/6
(Do.)	**KT42	7	4.0	1.0	250	250	2.5	—16.5	420	40.0	3,500	7,000	13/6
	**PT4	5	4.0	1.0	250	250	2.9	—16	400	40.0	2,500	7,500	18/6
	**PT25H	5	4.0	2.0	400	400	6.5	—16	240	75.0	10,000	4,000	45/–
	**KT63	O	6.3	0.7	250	250	2.5	—16.5	420	40.0	3,500	7,000	13/6
(Tetrode)	**KT32	O	26.0	0.3	110	110	9.0	—7.0	130	53.0	2,500	1,500	13/6
(Do.)	**KT66	O	6.3	1.27	400	300	6.3	—14.3	190	86.0	8,000	2,200	25/–
(Do.)	°KT30	7	13.0	0.3	250	250	3.9	—14	375	37.0	3,000	7,500	13/6
(Do.)	°KT31	7	26.0	0.3	200	180	10.0	—4.4	90	50.0	2,500	5,500	13/6
	**DET8	7	4.0	2.0	400	200	4.0	—	—	—	—	—	60/–
	**PT5	5	4.0	1.7	1,250	300	4.0	—	—	—	—	—	165/–
	**N43	7	4.0	2.0	250	250	10.0	—	90	40.0	4,500	7,800	25/–
Mazda	Pen 220	5	2.0	0.2	150	150	2.5	—4½	—	10.6	600	14,000	11/–
	Pen 220A	5	2.0	0.2	150	150	2.5	—9	—	21.0	1,100	6,000	13/6
	Pen 231	5	2.0	0.3	120	120	5.3	—2½	—	6.0	370	19,000	13/6
	*AC/Pen	7	4.0	1.0	250	250	2.5	—15½	400	38.0	3,400	7,500	13/6
	*AC2/Pen	7	4.0	1.75	250	250	8.0	—5.3	140	38.0	3,500	6,700	13/6
(Tetrode)	*AC4/Pen	7	4.0	1.75	250	250	11.0	—8.8	114	77.0	7,000	3,400	18/6
	°Pen 1340	7	13.0	0.4	250	250	6.5	—9	185	49.0	3,700	5,500	13/6
	°Pen 3520	7	35.0	0.2	250	250	7.0	—11.8	250	48.0	3,700	5,500	13/6
Mullard	PM22	4 & 5	2.0	0.2	150	150	1.3	—10	—	19.0	600	8,000	16/6
	PM22A	4 & 5	2.0	0.15	135	135	2.2	—4½	—	7.0	340	19,000	11/–
	PM22C	5	2.0	0.3	150	150	3.0	—20	—	27.0	1,450	8,000	13/6
	PM22D	5	2.0	0.3	135	135	3.0	—2.4	—	5.8	300	24,000	13/6
	*Pen 4VA	5 & 7	4.0	1.35	250	250	2.8	—22	500	39.0	3,800	6,000	13/6
	*Pen 4VB	7	4.0	1.95	250	250	9.5	—5.8	145	41.0	3,800	6,000	13/6
	*Pen A4	7	4.0	1.95	250	250	9.5	—5.8	145	41.0	3,800	8,000	13/6
	*Pen B4	7	4.0	2.1	250	275	8.5	—14	175	79.0	8,800	3,500	18/6
	*Pen 428	7	4.0	2.1	[P-375	275	8.0	—20½	165	71.0	28,000	6,500]	25/–
	**PM24	4 & 5	4.0	0.15	150	150	1.75	—11	650	25.0	—	8,000	17/6
	**PM24A	5	4.0	0.275	300	200	2.0	—22½	1,000	23.5	—	10,000	18/6
	**PM24M	5	4.0	1.0	250	250	3.0	—17	500	35.6	2,800	8,000	13/6
	**PM24B	5	4.0	1.0	400	300	2.1	—40	1,100	37.0	—	8,000	22/6
	**PM24C	5	4.0	1.0	400	200	3.0	—28	850	34.5	—	12,000	22/6
	**PM24E	5	4.0	2.0	500	200	4.0	—35	750	59.0	—	7,000	45/–
	°Pen 26	SC-P	24.0	0.2	200	100	3.1	—19	420	45.0	3,000	5,000	18/6
	°Pen 13C	7	13.0	0.5	250	250	6.0	—11.9	250	39.0	3,200	6,400	13/6
	°Pen 36C	7	35.0	0.2	200	200	8.0	—9	165	46.0	3,100	4,000	13/6
					[P =	Two in	Class AB]						
Osram	KT2	5	2.0	0.2	150	150	2.5	—4½	—	9.5	—	17,000	11/–
(Tetrode)													
(Do.)	KT21	5	2.0	0.3	150	150	5.3	—2½	—	6.5	—	19,000	11/–
(Do.)	*MKT4	5 & 7	4.0	1.0	250	200	3.0	—11	300	37.0	—	8,000	13/6
(Do.)	*KT41	7	4.0	2.0	250	250	10.0	—4.4	90	50.0	—	5,400	13/6
(Do.)	*KT42	7	4.0	1.0	250	250	2.5	—16½	420	39.5	—	7,000	13/6
(Acorn)	*ZA1	Sp	4.0	0.25	250	100	1.1	—2.2	—	2.7	—	—	60/–
(Tetrode)	*KT66	O	6.3	1.27	250	250	6.3	—16	190	86.0	—	2,200	25/–
(Do.)	*KT63	O	6.3	0.7	250	250	2.5	—16½	450	38.0	3,000	7,000	13/6
(Do.)	*KT32	O	26.0	0.3	135	135	9.0	—9	140	63.5	3,500	2,000	13/6
	**N43	7	4.0	2.0	250	250	10.0	—4½	—	40.0	—	5,400	25/–
	**PT25H	5	4.0	2.0	400	400	6.5	—18	288	75.0	—	4,000	45/–
(Tetrode)	°KT30	7	13.0	0.3	250	250	3.9	—15	375	40.0	—	7,500	13/6
(Do.)	°KT31	7	13.0 26.0	0.6 0.3	200	180	10.0	—4.4	90	50.6	—	6,000	13/6
Ostar Ganz.	°PT3	7c	250.0	0.024	250	250	3.5	—16	600	28.0	2,000	10,000	16/–
	°M43	7c	250.0	0.028	250	200	3.2	—26	600	44.0	3,500	6,000	16/9
	°M44	7c	250.0	0.032	250	250	10.0	—4½	900	46.0	3,800	5,000	17/6
Pix	220	—	2.0	0.2	150	100	2.5	—7½	—	8.0	200	—	9/6
Record	PT2	4 & 5	2.0	0.22	150	150	3.0	—6	—	8.0	600	14,000	8/6
	PT2C	5	2.0	0.26	150	150	2.0	—12	—	20.0	1,000	6,000	8/6
	*AC/PT	5 & 7	4.0	1.2	350	250	3.5	—18	400	40.0	3,000	7,000	10/6

(Continued on page vii.)

Output Pentodes and Tetrodes – continued.

Maker.	Type.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Screen volts.	Slope mA/v.	Bias volts.	Bias res. ohms.	Anode and screen current.	Output m.w.	Optimum load.	Price.
Record (contd.)	*AC/PTA ..	5 & 7	4.0	1.2	250	250	3.5	—16½	400	41.0	3,000	7,000	10/6
	*AC/PT4VB	7	4.0	2.0	250	250	10.0	—6	150	40.0	3,600	7,000	10/6
	**PT24M ..	5	4.0	1.1	250	250	4.0	—15	400	42.0	3,100	7,500	10/6
	°PT/24DA ..	7	24.0	0.2	200	100	8.0	—19	400	45.0	3,000	5,000	10/6
	°PT/24DAL	8sc	24.0	0.2	200	100	8.0	—19	400	45.0	3,000	5,000	10/6
	°PT/35DA ..	7	35.0	0.2	200	200	8.5	—8	170	50.0	3,200	4,400	10/6
Triotron	P215 ..	4 & 5	2.0	0.25	150	150	1.5	—15	—	19.5	500	10,000	8/6
	P225 ..	4 & 5	2.0	0.2	150	150	2.0	—4½	—	10.0	500	15,000	8/6
	*P440N ..	5 & 7	4.0	1.1	250	250	3.5	—15	650	28.0	2,000	7,500	11/-
	*P441N ..	7	4.0	1.1	250	250	4.0	—22	500	37.0	3,800	7,000	11/-
	*P495 ..	7	4.0	1.5	200	200	9.5	—5.8	175	35.0	3,500	7,000	11/-
	**P435 ..	5	4.0	1.1	250	250	3.0	—15	400	42.0	2,800	7,000	11/-
	**P440 ..	5	4.0	2.0	550	200	4.0	—40	900	52.0	7,600	14,000	30/-
	**P460 ..	—	4.0	2.0	550	200	6.0	—40	800	52.0	8,000	10,000	30/-
	°P2020N ..	—	20.0	0.18	200	200	2.5	—18	1,000	19.0	1,350	9,000	11/-
	°P2460 ..	5	24.0	0.18	200	100	8.0	—18	500	36.0	3,500	6,000	11/-
	°P2060 ..	8	24.0	0.2	200	100	8.0	—19	450	40.0	3,550	5,000	11/-
	°P3580 ..	7	33.0	0.2	250	250	7.5	—13	—	—	—	—	11/-
Tungsram	PP2 ..	5 & sc	2.0	0.14	135	135	2.1	—5	—	7.0	440	19,000	10/-
	PP222	4 & 5	2.0	0.22	150	150	3.0	—6	—	9.0	600	14,000	10/-
	PP225	5 & sc	2.0	0.26	135	135	2.0	—12	—	18.0	1,000	6,000	11/-
	*APP4A ..	5 & 7	4.0	1.2	250	250	3.5	—16½	400	40.5	3,000	7,000	13/6
	*APP4B ..	7	4.0	2.0	250	250	10.0	—6	140	40.0	3,600	7,000	13/6
	*APP4C ..	7	4.0	2.0	250	250	10.0	—6	140	40.0	3,600	7,000	13/6
	*APP4E ..	7	4.0	2.0	375	275	8.5	—13½	175	80.0	8,800	3,500	16/6
	*APP4G ..	7	4.0	2.0	250	250	10.0	—6	140	40.0	3,600	7,000	16/6
	*PP6AS ..	8sc	6.3	0.2	250	250	2.8	—18	500	37.0	2,250	8,000	15/-
	*PP6BS ..	8sc	6.3	1.2	250	250	10.0	—5½	140	40.0	3,600	7,000	14/9
	*PP6C ..	7	6.3	1.2	250	250	10.0	—5½	140	40.0	3,600	7,000	14/9
	*PP6E ..	7	6.3	1.2	375	275	8.5	—17	200	80.0	8,800	3,500	20/-
	**PP4 ..	5	4.0	1.1	250	250	4.0	—15	400	42.0	3,200	7,500	13/6
	°PP24 ..	7 & sc	24.0	0.2	200	100	8.0	—19	400	45.0	3,000	5,000	13/6
	°PP35 ..	7	35.0	0.2	200	200	8.5	—8	170	50.0	3,200	4,400	13/6
	°PP36 ..	7	35.0	0.2	200	200	8.5	—8	170	50.0	3,200	5,000	13/6
362 ..	ME2 ..	5	2.0	0.2	200	200	2.0	—12	—	—	1,000	7,000	10/-
	ME2a ..	5	2.0	0.2	200	200	2.0	—12	—	—	1,000	7,000	10/-
	*ACME4 ..	5	4.0	1.0	250	250	2.5	—16	400	—	3,000	5,000	10/6
	*ACME4C ..	7	4.0	2.0	250	250	4.5	—16	300	—	3,500	5,000	13/-
	**ACME4a	4	4.0	1.0	250	250	3.0	—22	500	—	3,500	3,000	10/6
	**ACME4b	5	4.0	1.0	250	250	3.0	—22	500	—	3,500	3,000	10/6
	**ME25 ..	5	4.0	2.0	400	400	4.0	—40	700	—	9,000	6,000	30/-

H.T. RECTIFYING VALVES

Maker.	Type.	Pins.	Fil. volts.	Fil. amps.	Anode volts. max. (R.M.S.).	Output mA.	Price.
Brimar	*R1	4	4.0	1.0	250+250	60	10/6
	*R2	4	4.0	2.5	350+350	120	10/6
	*R3	4	4.0	2.5	500+500	120	15/-
	°1D5	5	40.0	0.2	250	75	10/6
(Mercury) ..	**4037A	4	4.0	2.0	300	250	22/6
(Mercury) ..	*4039A	5	4.0	1.0	500	100	40/-
	*VLS61	4	2.0	1.2	6,000	3	20/-
Cossor	*431U	4	4.0	2.5	350+350	120	10/6
	*441U	4	4.0	2.5	500+500	120	15/-
	**506BU	4	4.0	1.0	250+250	60	10/6
	**442BU	4	4.0	2.5	350+350	120	10/6
	**460BU	4	4.0	2.5	500+500	120	15/-
	**408BU	4	4.0	1.0	250+250	30	12/6
	**412BU	4	4.0	1.0	250+250	70	20/-
	**4/100BU ..	4	4.0	2.5	500+500	200	20/-
	**448U	4	4.0	0.4	200	20	15/-
	**412SU	4	4.0	1.0	250	70	15/-
	**612BU	4	6.0	0.4	250+250	50	20/-
	**825BU	4	7.5	2.0	500+500	120	22/6
	°40SUA	5	40.0	0.2	250	75	10/6
	**225DU	7	2.0	0.5	750(VD)	20	20/-
	*SU2150	4	2.0	1.15	5,000	2	20/-
Dario	*1FW1	5	4.0	2.0	500+500	120	10/6
	**FW1	4	4.0	1.0	300+300	75	7/6
	**FW2	4	4.0	2.0	350+350	120	9/6
	**FW3	4	4.0	2.0	500+500	120	10/6
	**SW1	4	4.0	1.0	400	60	6/6
	°TW2	5	30.0	0.2	125+125	120	10/6
	°TW1	5	20.0	0.2	250	80	9/6
Ekco	**R41	4	4.0	2.0	350+350	120	10/6
Ever Ready ..	*A11B	4	4.0	2.4	350+350	120	10/6
	*A11C	4	4.0	2.4	500+500	120	15/-
	*A11D	4	4.0	2.0	350+350	120	10/6
	**811A	4	4.0	1.0	250+250	60	10/6
	**811D	4	4.0	2.0	350+350	120	10/6
	°C10B	5	20.0	2.0	250	75	10/6
Ferranti ..	*R4	4	4.0	2.5	350+350	120	10/6
Ferranti (contd.) ..	*R4A	4	4.0	2.5	500+500	120	15/-
(Mercury) ..	**ER4	4	4.0	1.0	5,000	3	20/-
(Mercury) ..	**GR4	4	4.0	3.0	350+350	350	25/-
Hivac	*UU60/250 ..	4	4.0	1.25	300+300	75	8/6
	*UU120/350 ..	4	4.0	2.5	350+350	120	10/6
	*UU120/500 ..	4	4.0	2.5	500+500	120	12/6
	°U26	7	13.0 or 26.0	0.6 or 0.3	250	120	12/6
	**MR1	4	4.0	3.0	1,000	250	20/-
Lissen	**UU41 ..	4	4.0	1.0	300+300	80	10/6
	**U650 ..	4	5.6	0.5	300	40	12/6
Marconi ..	*MU14 ..	4	4.0	2.5	500+500	120	15/-
	*MU12 ..	4	4.0	2.5	350+350	120	10/6
	**U10 ..	4	4.0	1.0	250+250	60	10/6
	**U12 ..	4	4.0	2.5	350+350	120	10/6
	**U14 ..	4	4.0	2.5	500+500	120	15/-
	**U18 ..	4	4.0	3.75	500+500	250	25/-
	*U31 ..	O	26.0	0.3	250	100	10/6
	*U50 ..	O	5.0	2.0	350+350	120	10/6
	*U30 ..	7	26.0	0.3	250	120	15/-
	**U16 ..	4	2.0	0.25	5,000	2	20/-
	**U17 ..	4	4.0	1.0	2,500	30	20/-
(Mercury) ..	**GU1 ..	4	4.0	3.0	1,000	250	25/-
(Mercury) ..	**GU5 ..	4	4.0	3.0	1,500	250	25/-
Mazda ..	*UU4 ..	4	4.0	2.2	350+350	120	10/6
	*UU5 ..	4	4.0	2.3	500+500	120	15/-
	UD41 ..	7	4.0	1.15	550 (VD)	35	20/-
	°U4020 ..	5	40.0	0.2	250	120	10/6
(Mercury) ..	**MU2 ..	4	2.0	2.5	4,500	5	20/-
	U21 ..	4	2.0	1.65	4,500	5	20/-
Mullard ..	*IW2 ..	4	4.0	1.2	250+250	60	10/6
	*IW3 ..	4	4.0	2.4	350+350	120	10/6
	*IW4/350 ..	4	4.0	2.0	350+350	120	10/6
	*IW4 ..	4	4.0	2.4	500+500	120	15/-
	**DW2 ..	4	4.0	1.0	250+250	60	10/6
	**DW3 ..	4	4.0	2.0	350+350	120	10/6
	**DW4/350 ..	4	4.0	2.0	350+350	120	10/6
	**DW4 ..	4	4.0	2.0	500+500	120	15/-
	**DW4/500 ..	4	4.0	2.0	500+500	120	15/-
	**HVR1 ..	4	2.0	0.3	6,000	5	20/-
	*HVR2 ..	4	4.0	0.65	6,000	3	20/-
	°UR1 ..	sc–P	20.0	0.2	250	75	12/6
	°UR3 ..	sc–P	30.0	0.2	250+250	120	15/-
	°UR1C ..	5	20.0	0.2	250	75	10/6
	°UR3C ..	7	30.0	0.2	250+250	120	15/-
Osram ..	*MU12 ..	4	4.0	2.5	350+350	120	10/6
	*MU14 ..	4	4.0	2.5	500+500	120	15/-
	*U31 ..	O	26.0	0.3	250	120	10/6
	*U30 ..	7	26.0 / 13.0	0.3 / 0.6	200	120	15/-
	**U10 ..	4	4.0	1.0	250+250	60	10/6
	**U12 ..	4	4.0	2.5	350+350	120	10/6
	**U14 ..	4	4.0	2.5	500+500	120	15/-
	**U18 ..	4	4.0	3.75	500+500	250	25/-
	**U50 ..	O	5.0	2.0	350+350	120	10/6
(Mercury) ..	**GU5 ..	4	4.0	3.0	1,500	250	25/-
	**U16 ..	4	2.0	0.25	5,000	2	20/-
	**U17 ..	4	4.0	1.0	2,500	30	20/-
Ostar:-Ganz ..	°EG50 ..	4	250.0	0.026	250	50	9/6
	°EG100 ..	4	250.0	0.026	250	120	12/9
	°NG50 ..	7C	250.0	0.44	150(VD)	100	15/-
	°NG100 ..	7C	250.0	0.44	150(VD)	100	17/6
Philips ..	*1881 ..	4	4.0	1.2	250+250	60	10/6
	*1867 ..	4	4.0	2.4	350+350	120	10/6
	*1861 ..	4	4.0	2.4	500+500	120	15/-
	**1821 ..	4	4.0	1.0	250+250	60	10/6
	**1801 ..	4	4.0	0.6	250+250	30	12/6
	**1807 ..	4	4.0	2.0	350+350	120	10/6
	**1561 ..	4	4.0	2.0	500+500	120	15/-
	**373 ..	3	4.0	1.0	220	40	15/-
	**505 ..	3	4.0	1.0	400	60	15/-
	**1002 ..	3	1.8	2.8	160	100	15/-
	**1560 ..	4	5.0	2.0	300+300	125	22/6
	°CY1 ..	4 & 8 sc.	20.0	0.2	250	75	12/6
	°CY2 ..	4 & 8 sc.	30.0	0.2	250+250	120	15/-
Pix	**250/60 ..	—	4.0	1.0	250+250	60	2/6
	**350/120 ..	—	4.0	2.0	350+350	120	3/6
	**500/120 ..	—	4.0	2.0	500+500	120	4/6
Record ..	*IFW4A ..	4	4.0	2.0	400+400	120	8/6
	**FW350 ..	4	4.0	1.0	300+300	80	7/6
	**FW3 ..	4	4.0	2.0	350+350	120	7/6
	**FW5 ..	4	4.0	2.0	500+500	120	10/6
	**FW6 ..	4	4.0	2.0	600+600	180	11/-
	°UFW/30 ..	7	30.0	0.2	275	120	8/6
	°UFW/30L ..	8 sc.	30.0	0.2	275	120	8/6
	°HW/20 ..	5	20.0	0.2	250	80	8/6

(Continued on page viii.)

H. T. Rectifying Valves—continued

Maker.	Type.	Pins.	Fil. volts.	Fil. amps.	Anode volts. max. (R.M.S.).	Output mA.	Price.
Record (contd.)	[2]HW/20L	8 sc.	20.0	0.2	250	80	8/6
	[2]HW/30	5	30.0	0.2	275	120	8/6
Triotron	*G4120N	4	4.0	2.0	500+500	120	9/6
	**G431	4	4.0	0.6	250+250	30	6/6
	**G470	4	4.0	1.0	300+300	70	7/6
	**G4120	4	4.0	2.0	500+500	120	9/6
	**G429	4	4.0	0.3	250	30	6/-
	**G4100	4	4.0	2.0	750	100	14/6
	**G4150	4	4.0	3.0	750	150	48/-
	*G2080	5 & 8	20.0	0.2	250	80	9/6
	*G3060	8	30.0	0.2	125+125	120	10/6
	*G3412	7	33.0	0.18	125+125	120	10/6
Tungsram	*AP4V	4	4.0	2.0	350+350	120	10/-
	*PVA6S	8 sc.	6.3	0.25	350+350	60	12/6
	*PVB6S	8 sc.	6.3	0.65	350+350	100	12/6
	*PVC6S	8 sc.	6.3	0.9	350+350	175	20/-
	**PV4	4	4.0	2.0	350+350	120	10/-
	**PV4200	4	4.0	2.0	500+500	120	15/-
	**PV4201	4	4.0	2.0	600+600	180	15/-
	**PV75/1,000	4	2.2	4.0	1,000+1,000	75	64/-
	**PV100/2,000	4	4.0	2.2	2,000+2,000	100	168/-
	[2]V30	5	30.0	0.2	275	120	10/-
	[2]PV30	7 & sc	30.0	0.2	275	120	10/-
362	**RB350/80	4	4.0	1.5	350+350	80	7/6
	**RB500/120	4	4.0	2.0	500+500	120	10/-
	**RB650/250	4	4.0	4.0	650+650	250	15/-

WESTECTORS

Maker.	Type.	Class.	Max. safe input voltage.	Max. current output.	Price
Westinghouse	W4	Half-wave	24v. peak carrier	0.25 m.a.	5/-
	W6	Half-wave	36v. peak carrier	0.28 m.a.	5/-
	WX6	Half-wave	36v. peak carrier	0.12 m.a.	5/-
	WM24	Full-wave centre tapped	24v. each side of C.T.	0.5 m.a.	10/-
	WM26	Full-wave centre tapped	36v. each side of C.T.	0.5 m.a.	10/-

METAL RECTIFIERS—H.T. TYPES

Maker.	Type.	Max. smoothed D.C. output.		Max. current output mA.	Max. A.C. input.				Condensers.		Price.
					Half-wave.		Full-wave.				
		Volts.	mA.		Volts.	mA.	Volts.	mA.	Capacity of each (V.D.).	Working voltage (V.D.).	
Westinghouse	HT14	130	20	30	135	30	80	60	6 mfd	200	10/-
	HT15	200	30	40	250	80	140	120	4 mfd	200	12/6
	HT16	300	60	60	400	90	240	200	4 mfd	400	13/-
	HT17	200	100	150	250	150	150	300	8 mfd	250	15/-
(For Class B)	HT17	150	25	—	150	40	—	—	8 mfd	350	15/-
½ in series)	HT17	500	120	150	—	—	300	550	6 mfd	500	30/-
	H1	3.6	10	10	3.5	20	—	—	100 mfd	12	4/2
	H10	36	10	10	35	20	—	—	10 mfd	50	4/6
	H50	180	10	10	175	20	—	—	2 mfd	250	7/10
	H75	270	10	10	260	20	—	—	2 mfd	400	10/-
	H100	360	10	10	350	20	—	—	1 mfd	500	12/4
	H120	432	10	10	420	20	—	—	0.85 mfd	600	14/-
	H176	650	10	10	620	20	—	—	.5 mfd	1,100	20/-
	J10	80	2	2	74-80	4	—	—	10 mfd	250	4/6
	J50	400	2	2	370-400	4	—	—	2 mfd	650	7/10
	J100	800	2	2	740-800	4	—	—	1 mfd	1,250	12/4
	J125	1,000	2	2	920-1,000	4	—	—	1	1,500	14/6
	J176	1,400	2	2	1,300-1,400	4	—	—	.5 mfd	2,000	20/-
(2 units in series)	H120	870	10	10	—	—	480	30	0.5 mfd	700	
(2 ,, ,,)	H176	1,300	10	10	—	—	720	30	0.25 mfd	1,000	
(10 ,, ,,)	H176	6,500	10	10	—	—	3,600	30	0.05 mfd	5,000	
(2 ,, ,,)	J10	170	2	2	—	—	74-80	6	10 mfd	250	
(2 ,, ,,)	J50	850	2	2	—	—	370-400	6	2 mfd	650	
(2 ,, ,,)	J100	1,700	2	2	—	—	740-800	6	1 mfd	1,250	
(4 ,, ,,)	J125	4,000	2	2	—	—	1,600-1,700	6	0.5 mfd	3,000	
(2 ,, ,,)	J176	3,000	2	2	—	—	1,300-1,400	6	0.5 mfd	2,000	
(10 ,, ,,)	J176	15,000	2	2	—	—	6,500-7,000	6	0.1 mfd	12,000	

(Further sections will appear shortly)

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"The Broadcaster" American Valve Chart

CHARACTERISTICS of American valves most called for in this country are listed below. For easy reference they are given in numerical and alphabetical order under their type numbers.

Only one list of characteristics is provided, since valves by different manufacturers which have the same type numbers have similar characteristics and are generally interchangeable. In the tables *average* maximum characteristics are given.

The list of valves has been divided into two sections to further simplify reference. Octal-based glass valves are given first, and these are followed by Standard Glass types. Characteristics listed are similar for both sections, except that the Standard Glass section incorporates an extra column giving the base pins fitted to the valve.

Metal octal equivalents can be found in the Octal Glass section if a letter G is added to their type number.

Finally are listed alphabetically under makers the types and prices of American valves available in this country.

OCTAL BASED TYPES

Type.	Class.	Fil. volts.	Fil. amps.	Anode volts.	Bias volts.	Screen volts.	Anode curr. m.a.	Screen curr. m.a.	Imped-ance.	Slope m.A/v	Amp. factor.	Optim. load.	Out-put m/w.
1C7G	Heptode	2.0	0.12	180	3.0	67.5	1.5	2.3	600,000	0.4	—	—	—
1D5G	H.F. Pen	2.0	0.06	180	3.0	67.5	2.3	0.7	750,000	0.7	525	—	—
1D7G	Heptode	2.0	0.06	180	3.0	67.5	1.5	2.0	500,000	0.3	—	—	—
1E5G	H.F. Pen	2.0	0.06	180	3.0	67.5	1.7	0.4	1 meg	0.65	650	—	—
1E7G	Double Pentode	2.0	0.24	135	7.5	135	6.5	2.0	220,000	1.6	350	2,400	650
1F5G	L.F. Pen	2.0	0.12	135	4.5	135	8.0	2.6	200,000	1.7	340	16,000	340
1F7G	D.D. Pen	2.0	0.06	180	1.5	67.5	2.0	0.6	1 meg	0.65	650	—	—
1H4G	Triode	2.0	0.06	180	13.5	—	3.1	—	10,300	0.9	9.3	—	—
1H6G	D.D.T.	2.0	0.06	135	3.0	—	0.8	—	35,000	0.575	20	—	—
1J6G	Double Triode	2.0	0.24	135	0	—	27.0	—	(Class B)			10,000	2,100
5V4G	F.W. Rec	5.0	1.75		Anode volts R.M.S. 400; output 200 m.a.								
5X4G	F.W. Rec	5.0	3.0		Anode volts R.M.S. 500; output 250 m.a.								
5Y3G	F.W. Rec	5.0	2.0		Anode volts R.M.S. 350; output 125 m.a.								
5Y4G	F.W. Rec	5.0	2.0		Anode volts R.M.S. 350; output 125 m.a.								
5Z4G	F.W. Rec	5.0	2.0		Anode volts R.M.S. 400; output 125 m.a.								
6A8G	Heptode	6.3	0.3	250	3.0	100	3.0	3.0	360,000	0.52	—	—	—
6B4G	Triode	6.3	1.0	250	45.0	—	60.0	—	800	5.52	4.2	2,500	3,200
6B8G	D.D. Pen	6.3	0.3	250	3.0	100	6.0	1.5	800,000	1.0	800	—	—
6C5G	Triode	6.3	0.3	250	8.0	—	8.0	—	10,000	2.0	20	—	—
6D8G	Heptode	6.3	0.15	250	3.0	100	3.0	3.5	320,000	0.5	—	—	—
6F5G	Triode	6.3	0.3	250	2.0	—	1.1	—	66,000	1.5	100	—	—
6F6G	L.F. Pen	6.3	0.7	315	22.0	315	42.0	8.5	100,000	2.6	260	7,000	5,000
6H6G	F.W. Rec	6.3	0.3		Anode volts R.M.S. 100; output 4 m.a.								
6J5G	Triode	6.3	0.3	250	8.0	—	9.0	—	7,700	2.6	20	—	—
6J7G	H.F. Pen	6.3	0.3	100	3.0	60	1.7	0.4	650,000	1.1	715	—	—
6K5G	Triode	6.3	0.3	250	3.0	—	1.1	—	50,000	1.4	70	—	—
6K6G	L.F. Pen	6.3	0.4	250	18.0	250	32.0	5.5	68,000	2.2	150	7,600	3,400
6K7G	H.F. Pen	6.3	0.3	250	3.0	100	7.0	1.7	800,000	1.45	1,160	—	—
6L5G	Triode	6.3	0.15	250	9.0	—	8.0	—	9,000	1.9	17	—	—
6L6G	Tetrode	6.3	0.9	375	17.5	250	57.0	2.5	—	—	—	4,500	6,500
6L7G	Heptode	6.3	0.3	250	3.0	100	3.3	5.5	800,000	1.1	—	—	—
6N6G	Double Triode	6.3	0.8	300	0	—	50.0	—	24,000	2.4	58	7,000	4,000
6N7G	Double Triode	6.3	0.8	300	0	—	35.0	—	(Class B operation)			10,000	10,000
6Q7G	D.D.T.	6.3	0.3	250	3.0	—	1.1	—	58,000	1.2	70	—	—
6R7G	D.D.T.	6.3	0.3	250	9.0	—	9.5	—	8,500	1.9	16	—	—
6S7G	H.F. Pen	6.3	0.15	250	3.0	100	8.2	2.0	800,000	1.6	1,280	—	—
6T7G	D.D.T.	6.3	0.15	250	3.0	—	0.9	—	65,000	1.0	65	—	—
6U7G	H.F. Pen	6.3	0.3	250	3.0	100	8.2	2.0	800,000	1.6	1,,280	—	—
6V6G	Tetrode	6.3	0.45	250	12.5	250	45.0	4.5	52,000	4.1	218	5,000	4,250
6V7G	D.D.T.	6.3	0.3	250	20.0	—	8.0	—	7,500	1.1	8.3	—	—
6X5G	F.W. Rec	6.3	0.5		Anode volts R.M.S. 350; output 60 m.a.								
25A6G	L.F. Pen	25.0	0.3	135	20.0	135	37.0	8.0	35,000	2.45	85	4,000	2,000
25A7G	L.F. Pen	25.0	0.3	100	15.0	100	20.5	4.0	50,000	1.8	90	4,500	770
25L6G	L.F. Pen	25.0	0.3	110	8.0	110	45.0	3.5	10,000	8.0	80	2,000	2,200
25N6G	Double Triode	25.0	0.3	180	0	110.0	45.0	7.0	11,400	11.4	25	2,000	2,000
25B6G	L.F. Pen	25.0	0.3	95	15.0	95	50.0	4.0	—	4.0	—	2,000	1,750
25Z6G	V.D. Rec	25.0	0.3		Anode volts R.M.S. 125; output 100 m.a.								

STANDARD GLASS TYPES

Type.	Class.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Bias volts.	Screen volts.	Anode curr. m.a.	Screen curr. m.a.	Imped-ance.	Slope m.A/v	Amp. factor.	Optim. load.	Out-put m/w.
00A	Triode	4	5.0	0.25	45	—	—	1.5	—	30,000	0.666	20	—	—
0Z4	F.W. Rec	0	Cold			Anode volts 350; output 75 m.a.								
01-A	Triode	4	5.0	0.25	135	9.0	—	3.0	—	10,000	0.8	8	—	—
1A4	Tetrode	4	2.0	0.06	180	3.0	67.5	2.3	0.7	750,000	0.7	525	—	—
1A6	Heptode	6	2.0	0.06	180	3.0	67.5	1.5	2.0	500,000	0.3	—	—	—
1B4	Tetrode	4	2.0	0.06	180	3.0	67.5	1.7	0.4	1 meg	0.65	650	—	—
1B5/25S	D.D.T.	6	2.0	0.06	135	3.0	—	0.8	—	35,000	0.075	20	—	—
1C6	Heptode	6	2.0	0.12	180	3.0	67.5	1.5	2.3	600,000	0.4	—	—	—
1F4	L.F. Pen	5	2.0	0.12	135	4.5	135	8.0	2.6	200,000	1.7	340	16,000	340
1F6	D.D. Pen	6	2.0	0.06	180	1.5	67.5	2.0	0.6	1 meg	0.65	650	—	—
1-V	H.W. Rec	4	6.3	0.3		Anode volts F.M.S. 350; output 60 m.a.								
2A3	Triode	4	2.5	2.5	300	62.0	—	40.0	—	800	5.25	4.2	2,500	3,500
2A5	L.F. Pen	6	2.5	1.75	315	22.0	315	42.0	8.5	100,000	2.6	260	7,000	5,000
2A6	D.D.T.	6	2.5	0.8	250	2.0	—	1.0	—	91,000	1.1	100	—	—
2A7	Heptode	7	2.5	0.8	250	3.0	100	3.0	3.0	360,000	5.2	—	—	—
2B7	D.D. Pen	7	2.5	0.8	250	3.0	100	6.0	1.5	800,000	1.0	800	—	—
2E5	Tuning I'cator	6	2.5	0.8	250	—	—	—	—	—	—	—	—	—
2G5	Do.	6	2.5	0.8	250	—	—	—	—	—	—	—	—	—
5Z3	F.W. Rec	4	5.0	3.0		Anode volts R.M.S. 500; output 250 m.a.								
6A3	Triode	4	6.3	1.0	250	45.0	—	60.0	—	800	5.25	4.2	2,500	3,200
6A4	L. F. Pen	5	6.3	0.3	180	12.0	180	22.0	4.5	60,000	2.5	150	8,000	1,500
6A6	Double Triode	7	6.3	0.8	300	0	—	35.0	—	—	—	—	—	—
6A7	Heptode	7	6.3	0.3	250	3.0	100	3.0	3.0	360,000	5.2	—	—	—
6B5	Double Triode	6	6.3	0.8	325	0	—	42.0	—	24,000	2.4	58	7,000	4,000
6B7	D.D. Pen	7	6.3	0.3	250	3.0	100	6.0	1.5	800,000	1.0	800	—	—
6C6	H.F. Pen	6	6.3	0.3	250	3.0	100	2.0	0.5	1.5 meg	1.225	1,500	—	—
6C7	D.D.T.	7	6.3	0.3	250	9.0	—	5.5	—	16,000	1.25	20	—	—
6D6	H.F. Pen	6	6.3	0.3	250	3.0	100	8.2	2.0	800,000	1.6	1,280	—	—
6E5	Tuning I'cator	6	6.3	0.3	250	—	—	—	—	—	—	—	—	—
6E6	Double Triode	7	6.3	0.6	250	27.5	—	36.0	—	7,000	3.4	6	14,000	1,600
6E7	H.F. Pen	7	6.3	0.3	250	3.0	100	7.5	1.75	770,000	1.5	20	—	—
6F7	Triode Pen	7	6.3	0.3	250	3.0	100	6.5	1.5	850,000	1.1	900	—	—
6G5	Tuning I'cator	6	6.3	0.3	250	—	—	—	—	—	—	—	—	—
6N5	Do.	6	6.3	0.15	135	—	—	—	—	—	—	—	—	—
6Y5	F.W. Rec	6	6.3	0.8		Anode volts R.M.S. 350; output 50 m.a.								
6Z4	F.W. Rec	5	6.3	0.5		Anode volts R.M.S. 350; output 60 m.a.								
6Z5/12Z5	Do.	6	6.3 / 12.6	0.8 / 0.4		Anode volts R.M.S. 230; output 60 m.a.								
10	Triode	4	7.5	1.25	425	40.0	—	18.0	—	5,000	1.6	8	10,200	1,600
12A	Triode	4	5.0	0.25	180	13.5	—	7.7	—	4,700	1.8	8.5	10,650	285
12A5	L.F. Pen	7	12.6 / 6.3	0.3 / 0.6	180	27.0	180	36.0	6.0	32,000	2.5	80	3,800	3,500
12A7	Diode Pen	7	12.6	0.3	135	13.5	135	9.0	2.5	102,000	0.975	100	13,500	550
12Z3	H.W. Rec	4	12.6	0.3		Anode volts R.M.S. 250; output 60 m.a.								
15	H.F. Pen	5	2.0	0.22	135	1.5	67.5	1.85	0.3	800,000	7.5	600	—	—
18	L.F. Pen	6	14.0	0.3	315	22.0	315	42.0	8.5	100,000	2.6	260	7,000	5,000
19	Double Triode	6	2.0	0.26	135	6.0	—	22.0	as Class B.				10,000	1,600
20	Triode	4	3.3	0.132	135	22.5	—	6.0	—	5,850	0.6	3.5	6,500	130
22	Tetrode	4	3.3	0.132	135	1.5	67.5	3.7	1.3	250,000	0.5	125	—	—
24A	Tetrode	5	2.5	1.75	250	3.0	90	4.0	1.7	600,000	1.05	630	—	—
25B5	Double Triode	6	25.0	0.3	180	0	100	46.0	5.8	15,200	2.3	35	4,000	3,800
25Y5	V.D. Rec	6	25.0	0.3		Anode volts R.M.S. 250; output 85 m.a.								
25Z5	V.D. Rec	6	25.0	0.3		Anode volts R.M.S. 125; output 100 m.a.								
26	Triode	4	1.5	1.05	180	14.5	—	6.2	—	7,300	1.15	8.3	—	—
27	Triode	5	2.5	1.75	250	21.0	—	5.2	—	9,250	0.975	9.0	—	—
30	Triode	4	2.0	0.06	180	13.5	—	3.1	—	10,300	0.9	9.3	—	—
31	Triode	4	2.0	0.13	180	30.0	—	12.3	—	3,600	1.05	3.8	5,700	375
32	Triode	4	2.0	0.06	180	3.0	—	1.7	—	1.2 meg	0.65	780	—	—
33	L.F. Pen	5	2.0	0.26	180	18.0	180	22.0	5.0	55,000	1.7	90	6,000	1,400
34	H.F. Pen	4	2.0	0.06	180	3.0	67.5	2.8	1.0	1 meg	0.62	620	—	—
35/51	Tetrode	5	2.5	1.75	250	3.0	90.0	6.5	2.5	400,000	1.05	420	—	—
36	Tetrode	5	6.3	0.3	250	3.0	90	3.2	1.0	550,000	1.08	595	—	—
37	Triode	5	6.3	0.3	250	18.0	—	7.5	—	8,400	1.1	9.2	—	—
38	L.F. Pen	5	6.3	0.3	250	22.0	250	25.0	3.8	100,000	1.2	120	10,000	2,500
39/44	H.F. Pen	5	6.3	0.3	250	3.0	90	5.8	1.4	1 meg	1.05	1,050	—	—
40	Triode	4	5.0	0.25	180	3.0	—	0.2	—	150,000	0.2	150	—	—
41	L.F. Pen	6	6.3	0.4	250	18.0	250	32.0	5.5	68,000	2.2	150	7,600	3,400
42	L.F. Pen	6	6.3	0.7	315	22.0	315	42.0	8.5	100,000	2.6	260	7,000	5,000
43	L.F. Pen	6	25.0	0.3	180	20.0	135	38.0	7.5	40,000	2.5	100	5,000	2,000

(Continued on page vii)

American Valves—continued

Type.	Class.	Pins.	Fil. volts.	Fil. amps.	Anode volts.	Bias volts.	Screen volts.	Anode curr. m.a.	Screen curr. m.a.	Impedance.	Slope m.A/v	Amp. factor.	Optim. load.	Output m/w.
45 ..	Triode	4	2.5	1.5	275	56.0	—	36.0	—	1,700	2.05	3.5	4,600	2,000
46 ..	Tetrode ..	5	2.5	1.75	250	33.0	—	22.0	—	2,380	2.35	5.6	6,400	1,250
47 ..	L.F. Pen ..	5	2.5	1.75	250	16.5	250	31.0	6.0	60,000	2.5	150	7,000	2,700
48 ..	Tetrode ..	6	30.0	0.4	125	22.5	100	52.0	12.0	11,000	3.9	43	1,500	3,000
49 ..	Tetrode ..	5	2.0	0.12	135	20.0	—	6.0	—	4,175	1.125	4.7	11,000	170
50 ..	Triode	4	7.5	1.25	450	84.0	—	55.0	—	1,800	2.1	3.8	4,350	4,600
51 ..	Tetrode ..	5	2.5	1.75	250	3.0	90	6.5	2.5	400,000	1.05	420	—	—
53 ..	Double Triode ..	7	2.5	2.0	300	0	—	35.0	—	—	—	—	—	—
55 ..	D.D.T.	6	2.5	1.0	250	20.0	—	8.0	—	7,500	1.1	8.3	—	—
56 ..	Triode	5	2.5	1.0	250	13.5	—	5.0	—	9,500	1.45	13.8	—	—
57 ..	H.F. Pen ..	6	2.5	1.0	250	3.0	100	2.0	0.5	1.5 meg	1.225	1,500	—	—
58 ..	H.F. Pen ..	6	2.5	1.0	250	3.0	100	8.2	2.0	800,000	1.6	1,280	—	—
59 ..	L.F. Pen ..	7	2.5	2.0	250	18.0	250	35.0	—	40,000	2.5	100	6,000	3,000
71A ..	Triode	4	5.0	0.25	180	40.5	—	20.0	—	1,750	1.7	3	4,800	790
75 ..	D.D.T.	6	6.3	0.3	250	2.0	—	1.0	—	91,000	1.1	100	—	—
76 ..	Triode	5	6.3	0.3	250	13.5	—	5.0	—	9,500	1.45	13.8	—	—
77 ..	H.F. Pen ..	6	6.3	0.3	250	3.0	100	2.3	0.5	1.5 meg	1.25	1,500	—	—
78 ..	H.F. Pen ..	6	6.3	0.3	250	3.0	125	7.0	1.7	800,000	1.45	1,160	—	—
79 ..	Double Triode ..	6	6.3	0.6	250	0	—	10.5	(Class B operation)				14,000	8,000
80 ..	F.W. Rec ..	4	5.0	2.0		Anode volts R.M.S. 400; output 125 m.a.								
81 ..	H.W. Rec ..	4	7.5	1.25		Anode volts R.M.S. 700; output 85 ma.								
82 ..	F.W Rec ..	4	2.5	3.0		Anode volts R.M.S. 500; output 125 m.a.								
83 ..	F.W. Rec ..	4	5.0	3.0		Anode volts R.M.S. 500; output 250 m.a.								
83V ..	F.W. Rec ..	4	5.0	2.0		Anode volts R.M.S. 400; output 200 m.a								
84 ..	F.W. Rec ..	5	6.3	0.5		Anode volts R.M.S. 350; output 60 m.a.								
85 ..	D.D.T.	6	6.3	0.3	250	20.0	—	8.0	—	—	—	—	—	—
89 ..	L.F. Pen ..	6	6.3	0.4	180	18.0	180	20.0	3.0	80,000	1.55	125	8,000	1,500
V99 ..	Triode	4	3.3	0.063	90	4.5	—	2.5	—	15,500	0.425	6.6	—	—
X99 ..	Triode	4	3.3	0.063	90	4.5	—	2.5	—	15,500	0.425	6.6	—	—
112 ..	Triode	4	5.0	0.25	180	13.5	—	7.5	—	4,700	1.8	—	7,600	270
183 ..	Triode	4	5.0	1.25	250	60.0	—	25.0	—	1,800	1.8	3.2	4,500	2,000
484 ..	Triode	5	3.0	1.3	180	9.0	—	6.0	—	9,300	1.35	12.5	—	—
950 ..	L.F. Pen ..	5	2.0	0.12	135	16.5	135	7.0	2.0	105,300	0.95	100	13,500	450

MAKERS AND PRICES

Maker. — **Types and prices.**

Arcturus .. **Standard Glass** :—O1A, 5/3; 1A6, 10/9; 1C6, 11/–; 1F4, 9/9; 1V, 7/–; 2A3, 11/6; 2A5, 9/3; 2A6, 9/3; 2A7, 12/–; 2B7, 12/–; 5Z3, 7/–; 6A4, 12/–; 6A6, 10/3; 6A7 8/6; 6B5, 11/6; 6B7, 9/9; 6C6, 7/9; 6D6, 7/6, 6E5, 9/9; 6F7, 13/6; 6G5 9/9; 10, 20/6; 12A, 7/3; 12A5, 14/3; 12A7, 11/9; 12Z3, 9/–; 12Z5, 9/3; 15, 14/3; 18, 12/6; 19, 8/6; 22, 12/3; 24, 8/–; 25S/1B5, 10/–; 25B5, 10/–; 25Y5, 8/9; 25Z5, 7/6; 26, 5/3; 27, 6/3; 30, 5/6; 31, 7/3; 32, 10/9; 33, 10/–; 34, 10/9; 36, 8/9; 37 7/3; 38, 8/9; 39/44, 8/9; 41, 7/3; 42, 7/6; 43, 7/9; 45, 6/3; 46, 10/6; 48, 22/6; 49, 9/3; 50, 20/6; 51, 8/–; 53, 12/–; 55, 9/9; 56, 6/3; 57, 8/9; 58, 8/9; 59, 12/3; 71A, 6/3; 75, 7/6; 76, 6/–; 77, 8/6; 78, 8/3; 79, 12/–; 80, 4/9; 81 17/–; 82, 8/9; 83, 8/9; 84, 8/9; 85, 8/3; 89, 12/–; 99V, 12/–; 99X, 12/–; PZ, 9/9.

Octal Bases :—5U4G, 10/6; 5V4G, 10/6; 5W4G, 7/–; 5X4G, 7/–; 5Y3G, 7/–; 5Z4G, 13/–; 6A8G, 10/6; 6B6G, 10/6; 6C5G, 8/6; 6F5G, 9/9; 6F6G, 9/9; 6H6G, 8/6; 6J7G, 11/3; 6K6G, 9/–; 6K7G, 9/9; 6L6G, 14/3; 6L7G, 12/–; 6N6G, 16/3; 6N7G, 12/9; 6P7G, 15/6; 6Q7G, 10/9; 6R7G, 10/9; 6U7G, 8/–; 6V6G, 10/9; 6V7G, 9/–; 6X5G, 10/9; 25A6G, 10/–; 25L6G, 13/ ; 25N6G, 13/–; 25Z6G, 9/–.

Metal Valves :—5W4, 8/–; 5Y3, 8/–; 5Z4, 12/–; 6A8, 12/6; 6C5, 8/6; 6F5, 9/–; 6F6, 10/6; 6H6, 8/6; 6J5, 10/9; 6K7, 10/3; 6L7, 13/–; 6N6, 16/3; 6N7, 13/–; 6Q7, 12/–; 6R7, 12/6; 6X5, 12/6; 25A6, 13/6; 25Z6, 12/6.

Brimar .. **Standard Glass** :—6A7, 15/–; 6B5, 18/6; 6B7, 20/– 6C6, 12/6; 6D6, 12/6; 25Z5, 10/6; 42, 13/6; 43, 13/6; 75, 12/6; 78, 12/6; 80, 10/6.
Octal Based :—5Z4G, 10/6; 6A8G, 15/–; 6B8G, 20/–; 6C5G, 9/6; 6F6G, 13/6; 6H6G, 5/6; 6J7G, 12/6; 6L7G, 12/6; 6N6G, 18/6; 6Q7G, 12/6; 6U7G, 12/6; 25A6G, 13/6; 25Z6G, 10/6.

British Belmont **Standard Glass** :—6A7, 8/6; 6B7, 8/6; 6C6, 7/6; 6D6, 7/6; 6G5, 9/–; 25Y5, 7/6; 25Z5, 7/–; 42, 7/6; 43, 7/6; 75, 7/6; 76, 6/–; 77, 7/6; 78, 7/6; 80, 4/9.
Octal Based :—5Y3G, 5/–; 6A8G, 8/6; 6B8G, 8/6; 6C5G, 6/6; 6F6G, 7/6; 6J7G, 7/6; 6K7G, 7/6; 6Q7G, 7/6; 25A6G, 7/6; 25Z6G, 7/6.

Champion .. **Standard Glass** :—O1-A, 5/–; 1A4, 10/3; 1A6, 10/3; 1B4, 10/3; 1B5/25S, 10/–; 1C6, 11/9; 1F4, 11/–; 1F6, 11/–; 1-V, 6/9; 2A3, 10/3; 2A5, 7/6; 2A6, 8/–; 2A7, 9/6; 2B7, 10/–; 2E5, 10/–; 5Z3, 6/9; 6A3, 10/3; 6A4, 9/–; 6A6, 10/–; 6A7, 8/6; 6B5, 16/6; 6B7, 9/6; 6C6, 7/6; 6D6, 7/–; 6E5, 10/6; 6E6, 10/3; 6F7, 12/6; 6G5, 10/–; 10, 18/–; 12A, 6/–; 12A5, 10/6; 12A7, 10/3; 12Z3, 8/–; 15, 14/–; 18, 10/6; 19, 8/6; 20, 18/–; 22, 11/9; 24A, 8/–; 25B5, 10/6; 25Y5, 8/6; 25Z5, 7/–; 26, 5/–; 27, 5/9; 30, 5/9; 31, 5/6; 32, 10/6; 33, 8/6; 34, 10/3; 35/51, 8/–; 36, 8/–; 37, 6/–; 38, 7/–; 39/44, 8/–; 41, 7/–; 42, 7/–; 43, 7/–; 45, 5/9; 46, 8/6; 47, 8/–; 48, 19/6; 49, 9/–; 50, 20/–; 53, 11/–; 55, 8/6; 56, 5/9; 57, 8/–; 58, 8/–; 59, 11/–; 71A, 5/9; 75, 8/–; 76, 5/9; 77, 8/6; 78, 8/–; 79, 11/–; 80, 4/6; 81, 17/–; 82, 6/9; 83, 6/–; 83V, 11/–; 84, 8/6; 85, 8/6; 89, 8/6; V99, 9/3; X99, 9/3; 950, 12/6.
Octal Bases :—1C7G, 12/–; 1D5G, 12/–; 1D7G, 12/–; 1E5G, 11/6; 1E7G, 16/6; 1F5G, 11/–; 1F7G, 11/3; 1H4G, 5/9; 1H6G, 11/–; 1J6G, 8/6; 5V4G, 10/3; 5X4G, 6/–; 5Y3G, 5/9; 5Y4G, 5/6; 6A8G, 9/–; 6B4G, 11/–; 6B8G, 11/6; 6C5G, 7/–; 6D8G, 10/3; 6F5G, 8/–; 6F6G, 8/–; 6H6G, 7/–; 6J5G, 7/–; 6J7G, 9/3; 6K5G, 6/–; 6K6G, 5/9; 6K7G, 8/–; 6L5G, 8/–; 6L7G, 10/–; 6N6G, 13/6; 6N7G, 8/6; 6Q7G, 7/–; 6R7G, 8/6; 6S7G, 9/–; 6T7G, 9/6; 6V6G, 8/6; 6X5G, 9/–; 25A6G, 8/–; 25A7G, 10/–; 25B6G, 8/6; 25Z6G, 7/6.

Maker. — **Types and prices.**

Metal Octals :—5T4, 14/–; 5W4, 8/3; 5Z4, 10/–; 6A8, 12/–; 6B8, 14/6; 6C5, 8/6; 6F5, 9/–; 6F6, 10/–; 6H6, 8/6; 6J7, 10/–; 6K7, 9/6; 6L7, 11/–; 6N7, 11/6; 6Q7, 10/6; 6R7, 10/6; 6X5, 10/6; 6V6, 14/–; 25A6, 10/–; 25L6, 10/3; 25Z6, 10/–.

Hytron .. **Standard Glass** :—O1A, 7/6; 1A4, 7/6; 1A6, 7/6; 1B4, 9/6; 1B5/25S, 7/6; 1C6, 7/6; 1F4, 7/6; 1F6, 9/6; 1-V, 5/6; 2A3, 9/6; 2A5, 7/6; 2A6, 7/6; 2A7, 9/6; 2B7, 7/6; 2E5, 9/6; 5Z3, 7/6; 6A3, 9/6; 6A4, 7/6; 6A6, 7/6; 6A7, 9/6; 6B5, 9/6; 6B7, 9/6; 6C6, 7/6; 6D6, 7/6; 6E5, 9/6; 6E6, 9/6; 6F7, 9/6; 6G5, 9/6; 10, 11/6; 12A, 7/6; 12A5, 11/6; 12A7, 9/6; 12Z3, 7/6; 15, 9/6; 18, 9/6; 19, 7/6; 20, 9/6; 22, 7/6; 24A, 7/6; 25B5, 9/6; 25Y5, 9/6; 25Z5, 7/6; 26, 7/6; 27, 7/6; 30, 7/6; 31, 7/6; 32, 7/6; 33, 7/6; 34, 7/6; 35/51, 9/6; 36, 7/6; 37, 7/6; 39/44, 9/6; 41, 9/6; 42, 9/6; 43, 9/6; 45, 9/6; 46, 9/6; 47, 9/6; 48, 14/6; 49, 7/6; 50, 11/6; 53, 7/6; 55, 7/6; 56, 7/6; 57, 9/6; 58, 9/6; 59, 9/6; 71A, 7/6; 75, 7/6; 76, 7/6; 77, 9/6; 78, 9/6; 79, 7/6; 80, 7/–; 81, 9/6; 82, 9/6; 83, 7/6; 83V, 13/6; 84, 9/6; 85, 7/6; 89, 7/6; V99, 7/6; X99, 7/6; 950, 9/6.
Octal Bases :—1C7G, 9/6; 1B5G, 9/6; 1D7G, 9/6; 1E5G, 9/6; 1E7G, 9/6; 1F5G, 9/6; 1F7G, 9/6; 1H4G, 7/6; 1H6G, 9/6; 1J6G, 9/6; 5V4G, 9/6; 5X4G, 7/6; 5Y3G, 7/6; 5Y4G, 7/6; 6A8G, 9/6; 6B4H, 9/6; 6B8G, 9/6; 6C5G, 9/6; 6D8G, 9/6; 6F5G, 9/6; 6F6G, 7/6; 6H6G, 9/6; 6J5G, 9/6; 6J7G, 9/6; 6K5G, 9/6; 6K6G, 9/6; 6K7G, 9/6; 6L5G, 9/6; 6L6G, 13/6; 6L7G, 9/6; 6N6G, 9/6; 6N7G, 9/6; 6Q7G, 9/6; 6R7G, 9/6; 6S7G, 9/6; 6T7G, 9/6; 6U7G, 9/6; 6V6G, 9/6; 6V7G, 9/6; 6X5G, 9/6; 25A6G, 9/6; 25A7G, 9/6; 25B6G, 9/6; 25Z6G, 9/6.
Specials :—Metal-shielded octal-based type with suffix MG.

Impex .. **Standard Glass** :—O1A, 6/–; 1A6, 14/–; 1C6, 11/–; 1-V, 8/6; 2A3, 11/–; 2A5, 9/6; 2A6, 9/6; 2A7, 11/–; 2B7, 11/–; 6A7, 11/–; 6B5, 10/–; 6B7, 11/–; 6C6, 9/6; 6D6, 8/5; 6F7, 11/6; 10, 15/–; 12Z3, 9/6; 19, 9/6; 24, 8/6; 25Z5, 9/6; 26, 6/–; 27, 7/–; 30, 7/–; 31, 7/–; 32, 11/–; 33, 9/6; 34, 11/–; 35/51, 8/6; 36, 8/6; 37, 7/–; 38, 8/6; 39/44, 8/6; 41, 8/6; 42, 9/6; 43, 9/6; 45, 7/–; 47, 8/6; 50, 16/–; 53, 11/–; 55, 9/–; 56, 7/–; 57, 8/6; 58, 8/6; 59, 11/–; 71A, 7/–; 75, 9/6; 76, 7/–; 77, 9/6; 78, 9/6; 80, 6/–; 81, 15/–; 83, 8/6; 84/6Z4, 11/–; 85, 9/6.
Octal Based : metal types only :—5Z3, 8/6; 5Z4, 12/6; 6A8G, 12/6; 6F5G, 10/–; 6F6G, 10/6; 6H6G, 10/–; 6J7G, 11/6; 6K7G, 10/6; 6L6G, 15/–; 6L7G, 13/6; 6N7G, 11/6; 6Q7G, 13/6; 6R7G, 13/6; 6X5G, 12/6; 25A6G, 13/6; 25Z6G, 12/6.

Ken-Rad .. **Standard Glass** :—1C6, 12/3; 2A5, 9/3; 2A6, 9/3; 5Z3, 7/6; 6A7, 8/9; 6C6, 8/–; 6D6, 7/6; 6F7, 11/9 6Z4-84, 8/6; 12A5, 12/6; 12A7, 11/6; 12Z3, 8/–; 15, 16/3; 24A, 8/6; 27, 6/9; 30, 6/9; 32, 11/6; 34; 11/6; 35/51, 8/–; 36, 8/–; 37, 7/9; 38, 8/–; 39/44, 8/–; 41, 7/6; 42, 7/6; 43, 7/6; 45, 6/6; 46, 8/–; 47, 8/3; 50, 20/–; 55, 8/9; 56, 5/9; 57, 7/9; 58, 7/9; 59, 11/6; 75, 7/9; 76, 5/9; 77, 8/9; 78, 8/–; 79, 11/6; 80, 5/6; 85, 8/9.
Octal Bases :—5Y4G, 7/6; 6A8G, 11/6; 6B8G, 14/6; 6F6G, 9/3; 6J7G, 10/6; 6N6G, 13/3; 6Q7G, 9/3; 6U7G, 9/9.
Metal Valves :—6F6, 9/3; 6J7, 10/6; 6K7, 9/9; 6L6, 15/6; 6L7, 12/9; 6Q7, 9/3; 6V6, 14/6; 25L6, 11/6.

National Union **Standard Glass** :—OZ4, 10/9; 1A6, 10/6; 1B5/25S, 9/6; 1C6, 11/–; 1-V, 7/9; 2A3, 10/9; 2A5, 8/–; 2A6, 8/9; 2A7, 10/–; 2B7, 10/–; 5Z3, 7/9; 6A6, 10/3; 6A7, 9/–; 6B5, 11/9; 6B7, 10/–; 6C6, 8/–; 6D6, 8/–; 6E5, 10/9; 6E6, 12/–; 6F7, 11/3; 6G5, 10/9; 6Z5, 11/9; 10, 17/6; 12A, 7/–; 12A5, 10/9; 12A7, 10/3; 12Z3, 8/6; 12Z5, 11/9; 15, 14/–; 18, 10/9; 19, 9/6; 22, 11/6; 24A, 9/–; 25Y5, 10/–; 25Z5, 8/–; 26, 6/3; 27, 7/3; 30, 7/3; 31, 6/9; 32, 10/3; 33, 9/6; 34, 10/3; 35/51, 9/–; 36, 9/–; 37, 7/6; 38, 8/9; 39/44, 8/9; 41, 8/–; 42, 8/–; 43, 8/9; 45, 7/–; 46, 9/–; 47, 9/–; 48, 18/9; 49, 9/–; 50, 17/6; 53, 10/3; 55, 9/6; 56, 7/6; 57, 8/9; 58, 8/9; 59, 11/6; 71A, 7/3; 75, 8/9; 76, 7/3; 77, 9/6; 78, 9/6; 79, 10/–; 80, 6/–; 81, 16/–; 82, 8/–; 83, 8/9; 84, 9/6; 85, 8/9; 89, 9/6.
Octal Based :—5Z4G, 11/6; 6A8G, 9/6; 6C5G, 8/9; 6F5G, 8/9; 6F6G, 8/9; 6H6G, 8/9; 6J7G, 10/–; 6K7G, 9/–; 6L7G, 10/6; 6Q7G, 8/9; 25A6G, 8/9.

Philco .. **Standard Glass** :—O1-A, 6/–; 1A4, 11/–; 1A6, 14/–; 1C6, 14/–; 1F4, 11/–; 2A3, 18/–; 2A7, 15/–; 5Z3, 11/–; 6A3, 15/6; 6A6, 15/6; 6A7, 15/–; 6F7, 13/6; 10, 25/–; 12A, 9/6; 12A7, 10/6; 15, 13/–; 18, 13/6; 19, 11/–; 24A, 12/–; 25Z5, 10/6; 26, 6/–; 27, 8/–; 30, 6/–; 32, 11/–; 33, 12/–; 34, 11/–; 35/51, 11/–; 36, 12/6; 37, 8/6; 38, 12/6; 39/44, 12/6; 41, 13/6; 42, 13/6; 43, 13/6; 45, 8/–; 46, 12/–; 47, 13/6; 50, 16/–; 53, 16/–; 55, 12/–; 56, 9/–; 59, 18/–; 71A, 6/–; 75, 12/6; 76, 9/–; 77, 12/6; 78, 12/6; 79, 14/–; 80, 8/–; 81, 15/–; 82, 11/–; 83, 10/6; 84, 10/6; 85, 12/–; 89, 12/–; V99, 16/3; X99, 11/–.
Octal Based :—5V4G, 16/–; 5X4G, 12/6; 5Y4G, 8/–; 6A8G, 15/–; 6B4G, 14/–; 6B8G, 14/–; 6F6G, 13/6; 6H6G, 12/6; 6J5G, 9/–; 6K5G, 12/6; 6K7G, 12/6; 6L7G, 16/–; 6N7G, 13/–.

Tung-Sol .. **Standard Glass** :—00A, 12/–; 01A, 5/2; 1A4, 11/10; 1A6, 10/6; 1B4/951, 12/6; 1B5/25S, 9/6; 1C6, 12/–; 1F4, 12/–; 1F6, 12/–; 1-V, 7/–; 2A3, 10/6; 2A5, 8/–; 2A6, 8/4; 2A7, 10/–; 2B7, 10/–; 2E5, 11/2; 2G5, 11/–; 5Z3, 6/10; 6A3, 11/2; 6A4, 10/–; 6A6, 10/–; 6A7, 8/4; 6B5, 13/–; 6B7, 9/6; 6C6, 7/8; 6C7, 11/–; 6D6, 7/8; 6E5, 10/–; 6E6, 14/–; 6E7, 11/2; 6F7, 12/6; 6G5, 11/–; 6N5, 11/2; 6Y5, 14/–; 6Z5/12Z5, 9/–; 10, 18/6; 12A, 6/6; 12A5, 11/–; 12A7, 11/–; 12Z3, 8/2; 19, 9/–; 20, 10/–; 22, 12/–; 24, 8/6; 25B5, 10/6; 25Y5, 10/–; 25Z5, 7/2; 26, 5/4; 27, 6/6; 30, 5/6; 31, 5/6; 32, 10/6; 33, 9/4; 34, 10/6; 35/51, 8/6; 36, 8/–; 37, 6/6; 38, 7/8; 39/44, 8/8; 40, 12/10; 41, 7/2; 42, 7/6; 43, 7/8; 45, 6/2; 46, 9/–; 47, 8/8; 48, 20/–; 49, 9/–; 50, 22/–; 53, 10/10; 55, 9/–; 56, 6/2; 57, 8/2; 58, 8/2, 59, 11/–; 71A, 6/2; 75, 7/8; 76, 6/6; 77, 8/6; 78, 8/4; 79, 10/6; 80, 4/10; 81, 17/–; 82, 7/2; 83; 8/–; 83V, 12/6; 84/6Z4, 8/8; 85, 8/8; 89, 8/8; 99V, 10/–; 99X, 10/–; 183, 13/2; 485, 12/–.
Octal Based :—1C7G, 12/6; 1D5G, 12/2; 1D7G, 11/6; 1E5G, 12/10; 1E7G, 17/6; 1F5G 12/2; 1F7G, 12/6;, 1H4G, 6/2; 1H6G, 10/–; 1J6G, 9/4; 5V4G, 13/6; 5X4G, 8/8; 5Y3G, 5/8; 5Y4G,, 5/8; 6A8G, 9/6; 6B4G, 11/10; 6B8G, 10/10; 6C5G, 7/8; 6C8G, 12/–; 6D8G, 11/–; 6F5G, 8/2; 6F6G, 8/4; 6H6G, 7/8; 6J5G, 7/–; 6J7G, 9/8; 6K5G, 8/–; 6K6G, 8/–; 6K7G, 8/4; 6L5G, 8/–; 6L6G, 12/6; 6L7G, 10/8; 6N6G 14/6; 6N7G, 11/–; 6Q7G, 8/8; 6R7G, 9/4; 6S7G, 8/4; 6T7G, 10/– 6V6G, 10/–; 6X5G, 9/6; 25A6G, 8/4; 25A7G, 11/–; 25B6G, 9/8; 25L6G, 9/6; 25N6G, 10/6; 25Z6G, 8/–.
Special Types :—Metal valves only : 5W4, F.W. Rec., 7/4; and 5Z4, F.W. Rec., 10/6.

Tungsram .. **Standard Glass** :—2A5, 12/–; 2A6, 12/–; 2A7, 14/–; 2B7, 14/–; 6A7, 14/–; 6B7, 14/–; 6C6, 12/–; 6D6, 12/–; 6G5, 14/–; 10, 22/6; 18, 12/–; 19, 11/–; 24A, 11/–; 25Y5, 13/–; 25Z5, 13/–; 27, 7/6; 33, 10/– 35, 10/–; 42, 12/–; 43, 12/–; 45, 7/–; 47, 12/–; 50, 22/6; 51, 12/–; 56, 8/–; 57, 12/–; 58, 12/–; 75, 12/–; 76, 8/–; 77, 12/–; 78, 12/–; 80, 7/–; 81, 17/6.
Octal Based :—5Y3G, 7/–; 5Z4G, 10/–; 6A8G, 14/–; 6B8G, 14/–; 6C5G, 8/–; 6F6G, 12/–; 6H6G, 5/6; 6J7G, 12/–; 6K7G, 12/–; 6L6G, 16/–; 6Q7G, 12/–; 6V6G, 13/6; 25A6G, 12/–; 25Z6G, 13/–.

Yale .. .. **Standard Glass** :—2A5, 9/6; 2A6, 9/6; 2A7, 10/–; 2B7, 10/–; 6A7, 10/–; 6B7, 10/–; 6C6, 8/6; 6D6, 8/6; 10, 11/6; 18, 9/6; 24A, 8/6; 25Y5, 9/6; 25Z5, 8/6; 35, 8/6; 42, 8/6; 43, 8/6; 45, 7/6; 47, 8/6; 56, 7/6; 57, 8/6; 58, 8/6; 75, 8/6; 76, 7/6; 77, 8/6; 78, 8/6; 80, 5/6; 81, 11/6.
Octal Based :—5Y3G, 6/6; 5Z4G, 9/6; 6A8G, 10/6; 6B8G, 10/6; 6C5G, 8/–; 6H6G, 5/–; 6J7G, 9/6; 6K7G, 9/6; 6Q7G, 9/6; 25A6G, 9/6; 25Z6G, 9/6.

(English Cathode Ray Tubes on page viii)

English Valves—concluded

Below is given the concluding section of the "Broadcaster" English Valve Chart. The other sections appeared on Nov. 27 and Dec. 4.

CATHODE RAY TUBES

Maker.	Type.	Heater volts.	Heater amps.	Deflection.	Max. anode volts.	Screen colour.	Screen dia.	Price. £ s. d
Baird	12MW1	2.2	2.5	Electro-magnetic	5,300	White	12 ins.	12 12 0
	15MW2	2.2	2.5	Do.	7,000	White	15 ins.	15 15 0
Cossor	3232	0.6	1.25	Double electrostatic	3,000	Five alternatives to all models. These are types J. light blue; E. red; G, long delay blue green H, sepia; and K, black and white.	133 mm.	7 10 0
	3233	0.6	1.25	Do.	3,000		133 mm.	7 10 0
	3236	0.6	1.25	Do. Split deflector plates.	—		133mm.	7 10 0
	3234	0.6	1.25	Single electrostatic with one split deflector plate.	1,500		100 mm.	4 15 0
	3237	0.6	1.25	Double electrostatic with one X and one Y plate split.	1,500		100 mm.	4 15 0
	3271	0.6	1.25	Double electrostatic	3,000		150 mm.	8 8 0
	3276	0.6	1.25	Do.	3,000		150 mm.	8 8 0
	3274	0.6	1.25	Do.	4,000		240 mm.	12 12 0
	3272	0.6	1.25	Do.	4,500		325 mm.	15 15 0
	3273	0.6	1.25	Single electrostatic	6,000		133 mm.	12 12 0
Ediswan	5H	2.0	1.5	Electrostatic	2,500	Blue	440 mm.	8 8 0
	7H	2.0	1.5	Do.	1,200	White	510 mm.	10 10 0
	12H	2.0	1.5	Do.	1,200	White	640 mm.	15 15 0
	9MH	2.0	1.5	Magnetic	6,000	White	228 mm.	9 9 0
	12MH	2.0	1.5	Do.	6,000	White	312 mm.	13 13 0
Marconi	6/1	4.0	1.3	Do.	4,000	Green	9 ins.	11 11 0
	6/2	4.0	1.3	Do.	4,000	White	9 ins.	11 11 0
	6/3	4.0	1.3	Do.	4,000	Green	12 ins.	15 15 0
	6/4	4.0	1.3	Do.	4,000	White	12 ins.	15 15 0
	4/1	4.0	1.3	Electrostatic	800	Green	3½ ins.	6 6 0
Mullard	E40-G3	4.0	1.0	Do.	800	Green	3 ins.	3 10 0
	4002	4.0	1.0	Do.	1,000	Green	4 ins.	6 15 0
	4002A	4.0	1.0	Do.	1,000	Blue	4 ins.	6 15 0
	A41-G4	4.0	1.0	Do.	1,200	Green	4 ins.	6 15 0
	A41-B4	4.0	1.0	Do.	1,200	Blue	4 ins.	6 15 0
	E41-G4	4.0	1.0	Do.	1,200	Green	4 ins.	6 15 0
	E41-B4	4.0	1.0	Do.	1,200	Blue	4 ins.	6 15 0
	E42-G6	4.0	1.0	Do.	2,000	Green	6 ins.	8 8 0
	E42-B6	4.0	1.0	Do.	2,000	Blue	6 ins.	8 8 0
	E46-G10	4.0	1.0	Do	5,000	Green	10 ins.	12 12 0
	E46-B10	4.0	1.0	Do.	5,000	Blue	10 ins.	12 12 0
	E46-12	4.0	1.0	Do.	50,00	White	12 ins.	15 15 0
	M46-12	4.0	1.0	Electro-magnetic	5,000	White	12 ins.	12 12 0
	M46-15	4.0	1.0	Do.	5,000	White	15 ins.	15 15 0
Standard	4050AB	0.75	0.7–1.1	Electrostatic	2,000	Blue	4 ins.	—
	4050AD	0.75	0.7–1.1	Do.	2,000	Delay	4 ins.	—
	4050AG	0.75	0.7–1.1	Do.	2,000	Green	4 ins.	—
	4050BB	0.75	0.7–1.1	Do.	2,000	Blue	6¼ ins.	—
	4050BD	0.75	0.7–1.1	Do.	2,000	Delay	6¼ ins.	—
	4050BG	0.75	0.7–1.1	Do.	2,000	Green	6¼ ins.	—
	4063AB	2.0	1.8–2.0	Do.	5,000	Blue	5½ ins.	—
	4063AW	2.0	1.8–2.0	Do.	5,000	White	5½ ins.	—
	4096AB	2.0	1.5	Do.	2,000	Blue	2¾ ins.	—

BARRETTERS

Maker.	Type.	Base.	Current (amps.).	Voltage range.	Price.
Marconi	301	ES cap	0.3	138—221	8/6
	302	ES cap	0.3	112—195	8/6
	303	ES cap	0.3	86—129	8/6
	304	ES cap	0.3	95—165	8/6
Osram	251	4 pin	0.25	100—180	12/6
	301	ES cap	0.3	138—221	8/6
	302	ES cap	0.3	112—195	8/6
	303	ES cap	0.3	86—129	8/6
	304	ES cap	0.3	95—165	8/6
	202	4 pin	0.2	120—200	8/6
Philips	C1	4 and 8SC	0.2	90—230	10/-
	1941	4	0.3	100—240	15/-
	1933	4	0.1	50—160	15/-
	1934	4	0.25	85—195	15/-
	1927	4	0.18	60—120	12/6
	1928	4	0.18	100—120	15/-
	1920	4	0.25	40—70	12/6
	1904	3, 4, SBC	0.1	40—70	12/6

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