

PHILIPS

TYPE No.	Base	Description	Function	Filament		Max Plate	Rec Plate	Plate	Screen	Bias	gm	ra	μ
				Volts	Amps	Volts	Volts	M/amps			Volts	Volts	ma/V
BRIGHT EMITTER VALVES													
D1	B4	Triode	Detector	3.5	0.5	30	20-25	2			-	-	-
D2	B4	Triode	RF/AF amplifier/Detector	3.5	0.5	100	40-100	2			0.25	40,000	10
D4	UV	Triode	Detector	3.5	0.5	30	20-25	2			-	-	-
D5	UV	Triode	RF/AF amplifier/Detector	3.5	0.5	100	40-100	2			0.25	40,000	10
D6	B4/UV	Tetrode	RF/AF amp./Power/Detector	3.5	0.5	10	2-Oct	1			0.35	13,000	4.5
E	B4	Triode	RF/AF amplifier/Detector	4.0	0.7	200	50-200	9			0.4	25,000	10
1 VOLT DC													
A106	B4	Triode	AF amplifier	1.0-1.3	0.06	100	20-100	6			0.4	15,000	6
A109	B4/UX	Triode	RF/AF amplifier/Detector	1.0-1.3	0.06	150	20-120	4		9	0.45	20,000	9
A110	B4	Triode	RF/AF amplifier/Detector	1.0-1.3	0.06	100	20-100	3			0.4	25,000	10
A141	B4/UX	Triode	RF/AF amplifier/Detector	1.0-1.3	0.06	20	20	4.5			1	4,500	4.5
B105	B4/UX	Triode	Power amplifier	1.0-1.3	0.06	120	20-120	12			0.6	8,300	5
2 VOLT DC													
A209	B4/UX	Triode	Detector	2.0	0.08	150		4		9	1	9,000	9
A225	B4	Triode	RF amplifier	2.0	0.08	150		1		3	1	25,000	25
A241	B4	Triode	RF/AF amplifier/Detector	2.0	0.06	20	2-20	4			1	4,500	4.5
B2	B4	Triode	RF/AF amplifier/Detector	1.8	0.15	100	20-100	2			0.25	40,000	10
B6	B4/UV	Tetrode	RF/AF amplifier/Detector	1.6-1.8	0.15	15	2-15	1.5			0.40	11,000	4.5
3 VOLT DC													
A306	B4	Triode	AF amplifier	2.7-3.3	0.06	100	20-100	6			0.4	15,000	6
A310	B4	Triode	RF/AF amplifier/Detector	2.7-3.3	0.06	100	20-100	2.5			0.4	25,000	10
A341	B4	Tetrode	RF/AF amplifier/Detector	2.7-3.3	0.06	20	2-20	3			1.0	4,500	4.5
4 VOLT DC													
A406	B4/UX	Triode	AF amplifier	4.0	0.06	100	20-100	6			0.45	13,000	6
A409	B4/UX	Triode	General purpose	4.0	0.06	150		3.5		9	1.2	7,500	9
A410	B4/UX	Triode	RF/AF amplifier/Detector	4.0	0.06	100	20-100	2.7			0.45	22,000	10
A415	B4/UX	Triode	Detector	4.0	0.08	150		3		4.5	2	7,500	15

A425	B4/UX	Triode	RF amp./RC amp.	4.0	0.06	150		0.8	3	1.2	20,800	25
A435	B4/UX	Triode	RF amplifier	4.0	0.06	150		1.4		0.5	70,000	35
A441	B5/UY	Tetrode	RF/AF amplifier/Detector	4.0	0.06	20	2-20	2.7		1	4,500	4.5
A442	B5/UY	Tetrode	RF amplifier	4.0	0.06	150			75	1	150,000	150
B406	B4/UX	Triode	RF amplifier/Detector	4.0	0.1	120	20-120	12		1	6,000	6

5 VOLT DC

C509	B4/UX	Triode	AF amplifier	4.5-5.3	0.25	120	20-120	10		1	9,000	9
------	-------	--------	--------------	---------	------	-----	--------	----	--	---	-------	---

TYPE No.	Base	Description	Function	Filament		Max Plate Volts	Rec Plate Volts	Plate M/amps	Screen Volts	Bias Volts	gm ma/V	ra Ohms	μ
				Volts	Amps								

6 VOLT DC

A609	B4/UX	Triode	General purpose	6.0	0.06	150		4		9	1.5	6,000	9
A615	B4/UX	Triode	Detector	6.0	0.08	150		4		4.5	2.4	6,250	15
A630	B4/UX	Triode	RF amplifier	6.0	0.06	150		1.5		1.5	1.5	20,000	30
A635	B4/UX	Triode	RF amplifier	6.0	0.06	150		1.2			1.5	23,300	35
A642	B4/UX	Tetrode	RF amplifier	6.0	0.06	200		4	100		0.7	-	-

2 VOLT AC

F215	B4/B5/UX/UY	Triode IH	RF amplifier/Detector	2.5	1.5	150		6.5		6	2	7,500	15
------	-------------	-----------	-----------------------	-----	-----	-----	--	-----	--	---	---	-------	----

4 VOLT AC

E409	B5/UY	Triode	AF amplifier	4.0	0.9	200	150	12		9	3	3,000	9
E415	B5/UY	Triode	Detector	4.0	0.9	150		6		6	2	7,500	15
E424	B4	Triode	Special detector	4.0	0.9	200	150	6		3.5	1.8	13,300	24
E424N	B5/UY	Triode	Special detector/AF amp.	4.0	1	200	150	6		3.5	2.4	10,000	24
E430	B5/UY	Triode	RF amp./RC amp.	4.0	0.9	150		4		3	2	15,000	30
E435	B5/UY	Triode	RF amp./RC amp.	4.0	1	200		3		1.5	1	35,000	35
E438	B5/UY	Triode	RF amp./RC amp.	4.0	0.9	200		2.5		3	1.5	25,300	38
E442	B5/UY	Tetrode	RF amplifier	4.0	0.9	200		1.5	100	1.3	1	700,000	700
E442S	B5/UY	Tetrode	General purpose	4.0	0.9	200		4	60	3	1	400,000	400

POWER VALVES - AC or DC

B105	B4/UX	Triode	Power amplifier	1.3	0.15	150		8		18	1	5,000	5
B203	B4/UX	Triode	Power amplifier	2.0	0.19	150		12		30	1.5	2,000	3
B205	B4/UX	Triode	Power amplifier	2.0	1.5	150		7		18	1.2	4,200	5
F203	B4/UX	Triode	Power amplifier	2.5	1.5	250		35		50	3	1,170	3.5

B403	B4/UX	Triode	Power amplifier	4.0	0.15	150	15	30	1.5	2,000	3
B405	B4/UX	Triode	Power amplifier	4.0	0.15	150	8	18	2	2,500	5
B406	B4/UX	Triode	Power amplifier	4.0	0.15	150	7.5	15	1.4	4,300	6
B409	B4/UX	Triode	Power amplifier	4.0	0.15	150	6.5	9	2	4,500	9
D404	B4/UX	Triode	Power amplifier	4.0	0.65	200	30	30	3.5	1,000	3.5
E406	B4/UX	Triode	Power amplifier	4.0	1	250	48	24	6	1,000	6
E408	B4/UX	Triode	Power amplifier	4.0	0.9	400	26	30	2	4,000	8
F410	B4/UX	Triode	Power amplifier	4.0	2	550	45	36	8	1,250	10
B605	B4/UX	Triode	Power amplifier	6.0	0.12	150	9	18	1.8	2,800	5
C603	B4/UX	Triode	Power amplifier	6.0	0.25	180	18	40	2	1,500	3
C606	B4/UX	Triode	Power amplifier	6.0	0.25	250	24	25	3.35	1,850	6
F704	B4/UX	Triode	Power amplifier	7.5	1.25	450	55	84	2.1	1,800	3.8

TYPE No.	Base	Description	Function	Filament		Max Plate	Rec Plate	Plate	Screen	Bias	gm	ra	μ
				Volts	Amps								
+ American Type													
PENTODES - AC or DC													
C243	B5/UY	Pentode	RF amp./RC amp.	2.0	0.27	150		17	150	15	1.5	40,000	60
D243	B5/UY	Pentode	RF amp./RC amp.	2.5	0.6	300		25	200	20	1.5	40,000	60
B443	B5/UY	Pentode	RF amp./RC amp.	4.0	0.15	150		12	150	15	1.2	50,000	60
C443	B4/B5/UY	Pentode	RF amp./RC amp.	4.0	0.25	300		22	200	22	1.5	40,000	60
E443	B5/UY	Pentode	RF amp./RC amp.	4.0	0.9	400		30	300	35	1.8	33,000	60
F443	B5/UY	Pentode	RF amp./RC amp.	4.0	2	500		45	200	39	4	15,000	60
C643	B5/UY	Pentode	RF amp./RC amp.	6.0	0.25	300		21	200	20	1.5	40,000	60
AMERICAN REPLICAS													
F109A	B4/UX	Triode - 226	Amplifier	1.5	1	200		9		12	1.5	6,000	9
F209A	B5/UY	Triode - 227	General purpose	2.5	1.75	200		8.8		12	1	9,000	9
F242	UY	Tetrode - 224	RF amplifier	2.5	1.75	180		4	100	1.5	1.1	-	-
F203	B4/UX	Triode - 245	Power	2.5	1.5	250		35		50	3	1,170	3.5
PH199	UV4/UX	Triode - UX199	General purpose	3.0	0.06	100	20-100	5			0.4	15,000	6
PH201A	UV4/UX	Triode - UX201A	General purpose	5.0	0.25	120	20-120	10			0.8	9,000	7
C603	B4/UX	Triode - 171A	Power	6.0	0.25	180		18		40	2	1,500	3
F704	B4/UX	Triode - 250	Power	7.5	1.25	450		55		84	2.1	1,800	3.8

RECTIFIER VALVES

TYPE No.	Base	Description	Function	Filament		Max Plate	m/a
505	B3	Half wave	Rectifier	4.0	1	400	60
506	B4	Full wave	Rectifier	4.0	1	300	75
373	B3	Half wave	Rectifier	4.0	1	220	40
1201	B4	Full wave	Rectifier	2.5	1.5	300	75
1560	B4/UX	Full wave - 280	Rectifier	5.0	2	300	125
1561	B4/UX/P	Full wave	Rectifier	4.0	2	500	125
1562	UX	Half wave- 281	Rectifier	7.5	1.25	750	110

NOTE There are many more Philips valves that are not usually seen in Australia.
If you require data on any Philips valve not listed here, please email me and I will provide what data I have.

[EMAIL link](#)

Sources

Illustrated History of Philips Radio Valves - Fin Stewart - 1980 & 1995
Philips Radio Catalogue - 1920s reproduction
Listener In Set Constructor
Radio Sir - 1930-31
Harringtons Catalogue - 1929

Created

Art Courtney 6/07/2016