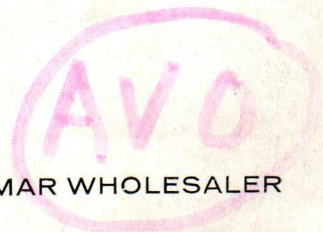
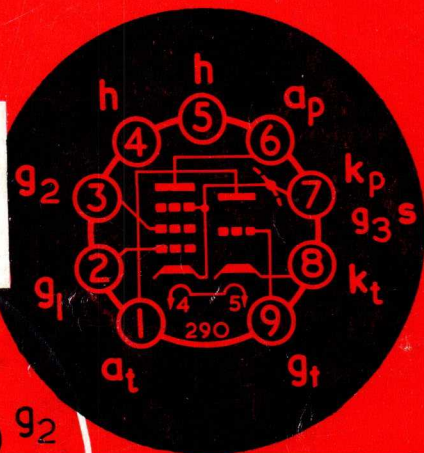
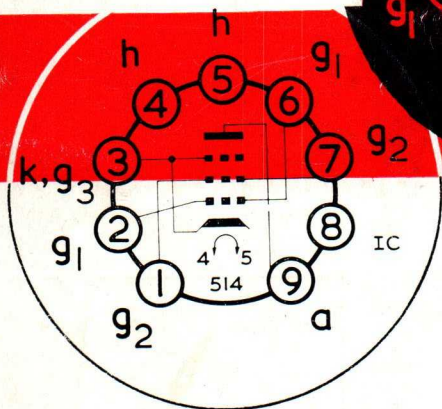


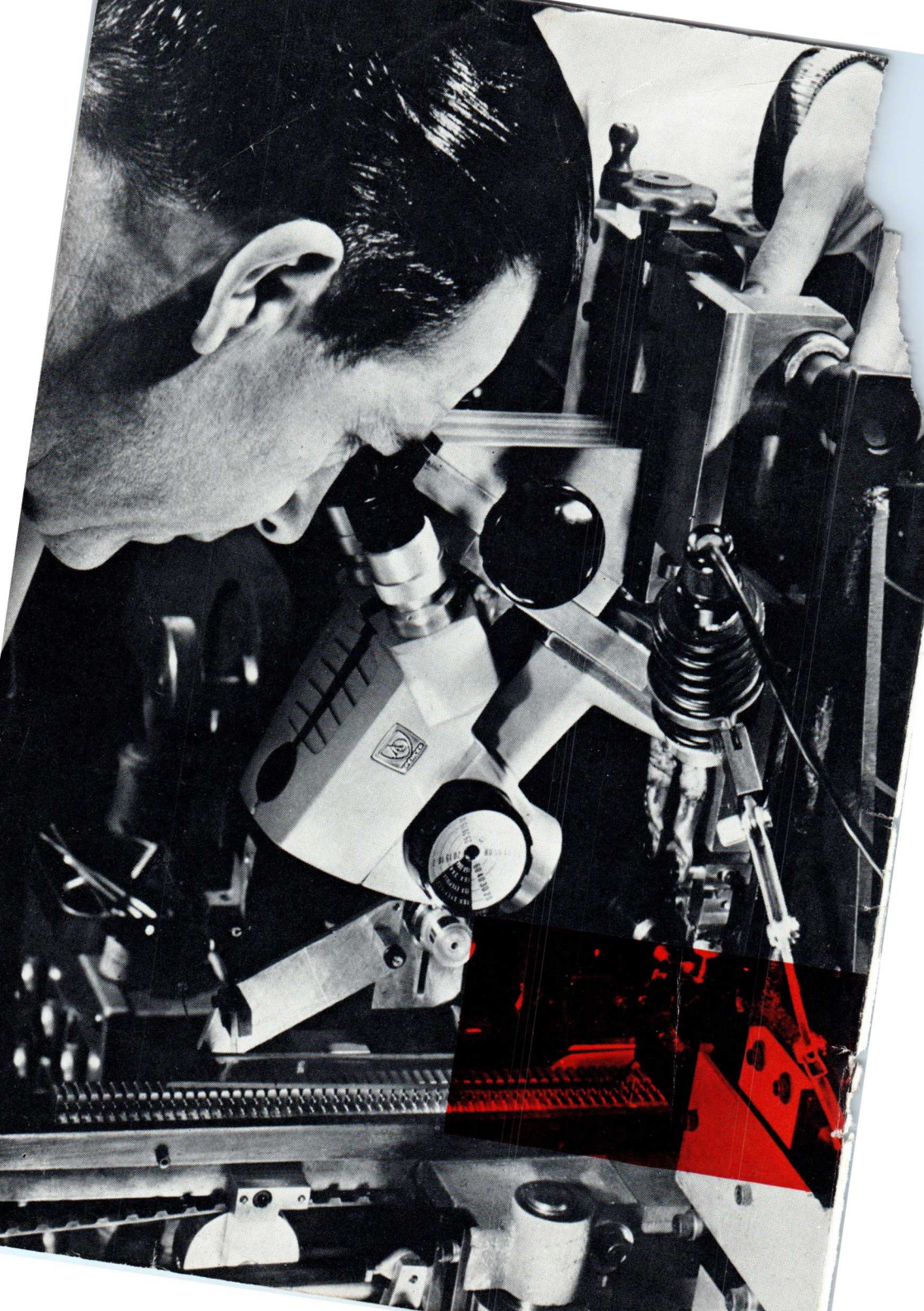
# VALVES & TELETUBES

## Data List 33

# BRIMAR



YOUR BRIMAR WHOLESALER



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**THORN-AEI RADIO VALVES & TUBES LTD.****Maintenance Sales Department****7 Soho Square, London W.1**

TELEPHONE: London GERrard 5233 (STD: 01-437-5233)

TELEX: 261680 (TARVAT LDN)

**DISTRIBUTION BY 350 BRIMAR WHOLESALERS AND 12,000 RETAILERS**

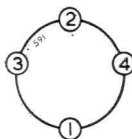
# BRIMAR PUBLICATIONS

<b>BRIMAR DESIGN DATA HANDBOOK (UK Edition)</b>	<i>Loose-leaf data sheets in blue plastic binders.</i>		Initial Charge	Annual Service Charge		
	Volumes 1 & 2	Receiving and Industrial Valves, Special Quality Valves, Teletubes			£3.0.0.	£1.0.0.
	Supplement	Industrial Cathode Ray Tubes (supplied on request only)				
	Volume 3*	Industrial Semiconductor Devices *Volume 3 may be purchased separately. A separate edition is published for Overseas subscribers.			£1.0.0.	£1.0.0.
			£2.0.0.	£1.0.0.		
<b>BRIMAR DATA SHEETS</b>	Design Data sheets on valves, tubes or semiconductors are available for individual types on request.			Free		
<b>BRIMAR MANUAL</b>	A bound book of over 400 pages giving design data on <i>Current Equipment</i> and <i>Maintenance</i> valves and Teletubes, with abridged data on <i>Obsolescent</i> and <i>Obsolete</i> types. Reference material includes equivalents, CV numbers, circuits, formulae etc.			Edition No. 10 Price 7s. 6d. Postage 1s. 6d.		
<b>BRIMAR RETAIL PRICE LIST</b>	Retail List Prices of all Brimar <i>Entertainment</i> valves and Teletubes in alpha-numeric order. Does NOT include Industrial or Special Quality types			Free		
<b>BRIMAR INDUSTRIAL PRICE LIST</b>	Industrial User Prices of all Brimar <i>Industrial</i> valves and entertainment valves used in industry in a single alpha-numeric sequence for easy type number identification.			Free		
<b>BRIMAR INDUSTRIAL VALVE BOOKLET</b>	Abridged valve data similar to this No. 33 Data List, but compiled especially for the industrial user of valves and factory maintenance departments.		(publication date to be announced)	Free		
<b>BRIMAR INDUSTRIAL CRT BROCHURE</b>	Abridged data on <i>Current Equipment</i> and <i>Maintenance</i> types of Brimar Industrial Cathode Ray Tubes. Radar tubes, Oscilloscope Tubes, Monitor Tubes, Phosphors, Classification index including <i>Obsolete</i> Ediswan and Sylvania-Thorn types.			Free		
<b>ELECTRONS BOOKLETS</b>	Educational booklets on how the subjects work and what their characteristics mean.					
		Electrons in Diodes.		1s. 0d.		
		Electrons in Triodes.		2s. 0d.		
		Electrons in Screen Grids & Pentodes		1s. 0d.		
		Electrons in Beam Tetrodes.		1s. 0d.		
		Electrons in Picture Tubes.		2s. 0d.		
	One complete set including postage.			7s. 6d.		

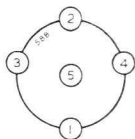
Obtainable from Brimar Representatives or direct from the Brimar Head Office, address on page 1

# VALVE AND TELETUBE BASE TYPES

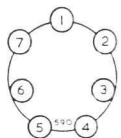
Types of valve bases included in the Brimar past and present ranges



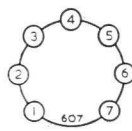
**B4**  
British 4 Pin



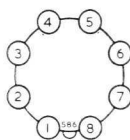
**B5**  
British 5 Pin



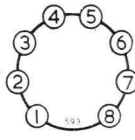
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British 7 Pin



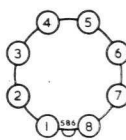
**B7G**  
Small Button miniature



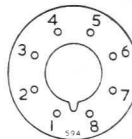
**B8A**  
Rimlock



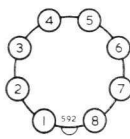
**B8D/F**  
Wire ended subminiature



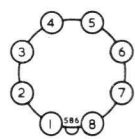
**B8G**  
Loctal



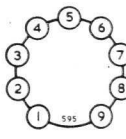
**B8H**



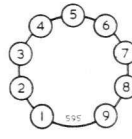
**B8-MO**  
Mazda Octal



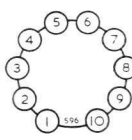
**B8-O**  
International Octal



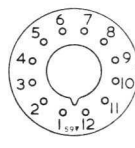
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Noval



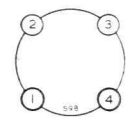
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Magnoval



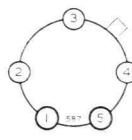
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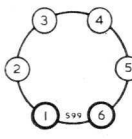
**B12A**  
Duodecal



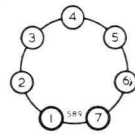
**UX4**



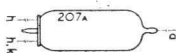
**UX5**



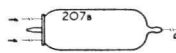
**UX6**



**UX7**



**Wire ended**



**Wire ended**

American types interchangeable with British types have been given the British designation.

B7G covers American 7 pin miniature types.

B8A includes B8B, British and American Loctal and Lock-in bases.

Special Quality Valve Section details types available as 'solder-in' versions—see page 4.

# BRIMAR SPECIAL QUALITY VALVES

Data on Brimar Special Quality valves will be found, together with commercial types, in numerical order, on pages 6 and 34 to 37.

## TRUSTWORTHY TYPES

Ruggedised construction to withstand vibration and shock

5654	5750*	6059*	6062*	6065*	6132*
5726*	6057*	6060*	6063*	6067*	6158*
5749	6058	6061*	6064*	6100	6516

## OTHER TYPES

Suitable for long operation under cut-off conditions.

5963	5965*	6688	7032	7498	E88CC
------	-------	------	------	------	-------

## SOLDER-IN VERSIONS

\*These types are also available as solder-in valves without plug-in bases.

### Key to type prefix letters

- F/ - Standard flying lead version
- FF/- Unscreened on PTFE base
- SF/- Screened on PTFE base
- SX/- Screened on nylon-loaded PF base
- XF/- Unscreened on nylon-loaded PF base

## CHANGING TO BRIMAR SPECIAL QUALITY VALVES

Increase reliability in existing Industrial Electronics equipment

The following Special Quality types are recommended as plug-in replacements for the corresponding commercial types. Substitution in the reverse direction is not recommended.

Commercial Types	Special Quality Types	Commercial Types	Special Quality Types
6AK5	5654	6CH6	6132
6AL5	5726, 6058	6X4	6063
6AM5	6516	9D6	6065
6AM6	6064	12AT7	6060
6BA6	5749	12AU7	6067, 5963
6BE6	5750	12AX7	6057
6BR7	6059	13D3	6158
6BW6	6061	5763	6062
6C4	6100	ECC88	E88CC

# SYMBOLS AND ABBREVIATIONS

<b>A</b>	Amperes	<b>k<math>\Omega</math></b>	Kilohms
<b>A.F.</b>	Audio Frequency	<b>M</b>	External Bulb Metallizing
<b>a</b>	Anode	<b>mA</b>	Milliamperes
<b>a'</b>	Anode of section 1	<b>mA/V</b>	Milliamperes per volt
<b>a''</b>	Anode of section 2	<b>NC</b>	No Connection
<b>a<sub>1</sub></b>	Anode nearest to cathode	<b>NP</b>	No Pin
<b>a<sub>2</sub></b>	Second anode from cathode	<b>p</b>	Pentode
<b>a<sub>3</sub></b>	Focusing anode	<b>P<sub>out</sub></b>	Power Output
<b>a<sub>4</sub></b>	Final anode	<b>P.I.V.<sub>max</sub></b>	Maximum Peak Inverse Voltage
<b>bp</b>	Beam plates	<b>q</b>	Tetrode
<b>ct</b>	Centre tap	<b>R<sub>k</sub></b>	Cathode Bias Resistance
<b>d</b>	Diode	<b>R<sub>L</sub></b>	Optimum Load Resistance
<b>D.C.</b>	Direct Current	<b>r.m.s.</b>	Root Mean Square value
<b>E.H.T.</b>	Extra High Tension	<b>s</b>	Internal Shield
<b>f</b>	Filament	<b>SC</b>	Side Contact
<b>F.C.</b>	Frequency Changer	<b>t</b>	Triode or Fluorescent Target
<b>g</b>	Grid	<b>TC</b>	Top Cap
<b>g<sub>1</sub></b>	Control Grid (or grid nearest to cathode)	<b>U.H.F.</b>	Ultra High Frequency
<b>g<sub>2</sub></b>	Screen Grid	<b>V</b>	Volts
<b>g<sub>3</sub></b>	Suppressor Grid	<b>V<sub>a</sub></b>	Anode Voltage
<b>g'</b>	Grid of section 1	<b>V<sub>a (r.m.s.) max</sub></b>	Maximum R.M.S. Anode Voltage
<b>g''</b>	Grid of section 2	<b>-V<sub>g1</sub></b>	Negative Control Grid Voltage
<b>g<sub>m</sub></b>	Mutual Conductance	<b>V<sub>g2</sub></b>	Screen Grid Voltage
<b>h</b>	Heater, Hexode or Heptode	<b>V<sub>h</sub></b>	Heater Voltage
<b>h<sub>ct</sub></b>	Heater centre tap	<b>V.H.F.</b>	Very High Frequency
<b>H.F.</b>	High Frequency	<b>W</b>	Watts
<b>I<sub>a</sub></b>	Anode Current	<b>'</b>	First Electrode System
<b>I<sub>h</sub></b>	Heater Current	<b>"</b>	Second Electrode System
<b>I<sub>k (max)</sub></b>	Maximum Cathode Current	<b>'''</b>	Third Electrode System
<b>I<sub>out (max)</sub></b>	Maximum D.C. Output Current	<b><math>\mu</math></b>	Amplification Factor
<b>IC</b>	Internal Connection (see note below)	<b><math>\Omega</math></b>	Ohms
<b>I.O.</b>	International Octal Base		
<b>j</b>	Jumper		
<b>k</b>	Cathode		
<b>kV</b>	Kilovolts		

\*Alternative heater connections at double voltage and half current.

## NOTE:

**PINS MARKED IC** These valve pins are connected to internal electrodes for mechanical reasons only. The electrode connected may change within the same valve type. **THE CORRESPONDING VALVE-HOLDER SOCKET MUST BE LEFT UNCONNECTED.**

All base diagrams are viewed from the free end of the valve pins.

# BRIMAR VALVE DATA

FOR KEY TO SYMBOLS AND ABBREVIATIONS PLEASE SEE PAGE 5

Sales Classification: C=Current type, M=Maintenance type, Mo=Obsolsolete type, O=Obsolete type, SQ=Special Quality.

Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub> ‡V <sub>rms</sub> (max) per anode	V <sub>g2</sub> ‡P.I.V. (max)	-V <sub>g1</sub>	I <sub>a</sub> ‡I <sub>out</sub> (max) per anode	μ ‡μ <sub>g1-g2</sub>	ε <sub>m</sub> ‡ε <sub>c</sub>	R <sub>L</sub> kΩ	R <sub>k</sub> Ω	P <sub>out</sub> W
<b>D15</b>	Barretter Current Stabiliser	1	Mo	1.4	0.05	90-140†	67.5	0	0-15A\$		0-625			
<b>DAF91/1S5</b>	Battery Diode Pentode	2	M	1.4	0.025	67.5	67.5	1.5	1.6		0-17			
<b>DAF96</b>	Battery Diode Pentode	3	M	1.4	0.025	67.5	67.5	1.5	C-17					
<b>DCC90/3A5</b>	Double Triode	4	O	1.4*	0.22*	90	67.5	2.5	3.7	15	1.8			
<b>DF91/1T4</b>	Battery Vari-mu Pentode	5	M	1.4	0.05	90	67.5	0	3.5		0.9			
<b>DF96</b>	Battery Vari-mu Pentode	6	M	1.4	0.025	85	64	0	1.65	18†	0.85			
<b>DK91/1R5</b>	Battery Heptode F.C.	7	M	1.4	0.05	90	67.5		1.6		0.3†			
<b>DK92/1AC6</b>	Battery Heptode F.C.	8	M	1.4	0.05	85	60		0.7		0-325†			
<b>DK96</b>	Battery Heptode F.C.	8	M	1.4	0.025	85	68		0.6		0-3†			
<b>DL91/1S4</b>	Battery Beam Tetrode	9	Mo	1.4	0.1	90	67.5	7	7.4		1.58	8		0.27
<b>DL92/3S4</b>	Battery Output Pentode	10	M	1.4*	0.1*	90	67.5	7	7.4		1.58	8		0.27
<b>DL94/3V4</b>	Battery Output Pentode	11	M	1.4*	0.1*	90	90	4.5	7.7		2	10		0.24
<b>DL96</b>	Battery Output Pentode	11	M	1.4*	0.05*	85	85	5.2	5	7†	1.4	13		0.2
<b>DM70</b>	Tuning Indicator	12	M	1.4	0.025	60	22,000†	0	0.12					
<b>DY86</b>	E.H.T. Rectifier	13	C	1.4	0.55				0.5†					
<b>DY87</b>	E.H.T. Rectifier	13	C	1.4	0.55		22,000†	+9	0.5†					
<b>EB8CC</b>	Double Triode	14	CSQ	6.3	0.3	100			15	33	12.5			680
<b>EABC80</b>	Triple Diode Triode	15	M	6.3	0.45	100		1	0.8	70	1.45			
<b>EB91/6AL5</b>	Double Diode	16	C	6.3	0.3	150†			9†					
<b>EBC41</b>	Double Diode Triode	17	M	6.3	0.23	250†		3	1	7†	1.2			
<b>EBC81</b>	Double Diode Triode	18	M	6.3	0.23	250		3	1	7†	1.2			
<b>EBC90</b>	Double Diode Triode	19	M	6.3	0.3	250		3	1	70	1.2			
<b>EBC91</b>	Double Diode Triode	19	M	6.3	0.3	250		2	1.2	100	1.6			
<b>EBF80</b>	Double Diode Pentode	20	M	6.3	0.3	250	85	2	5	18†	2.2			

†Voltage range. ‡Alternative column heading. §Operating current.



*Pin View*

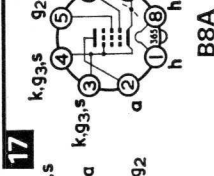
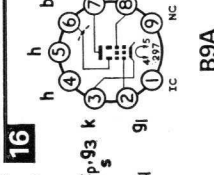
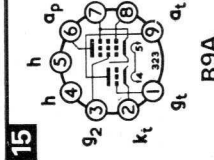
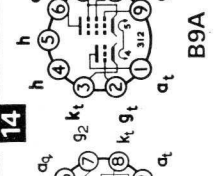
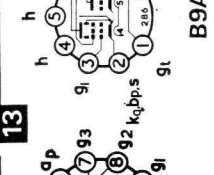
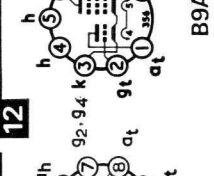
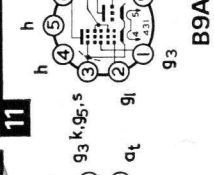
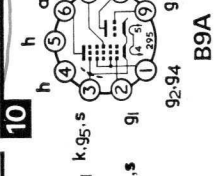
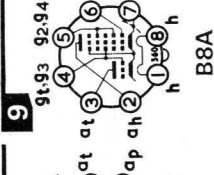
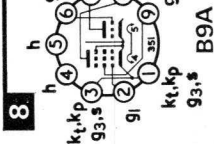
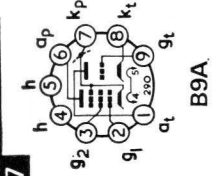
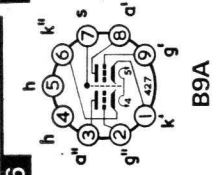
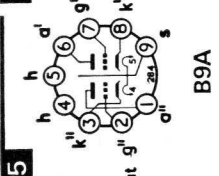
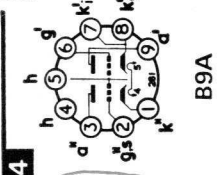
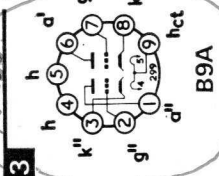
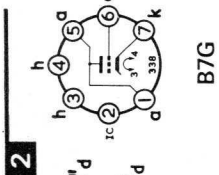
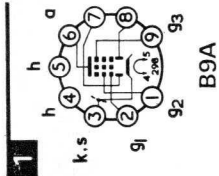
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<b>8</b>		<b>9</b>		<b>10</b>		<b>11</b>		<b>12</b>		<b>13</b>		<b>14</b>	
<b>15</b>		<b>16</b>		<b>17</b>		<b>18</b>		<b>19</b>		<b>20</b>		<b>21</b>	
<b>22</b>		<b>23</b>		<b>24</b>		<b>25</b>		<b>26</b>		<b>27</b>		<b>28</b>	

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Sales Classification: C=Current type, M=Maintenance type, Mo=Obsolete type, O=Obsolete type, SQ=Special Quality.

Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	-V <sub>g1</sub>	I <sub>a</sub>	μ <sup>†</sup>	g <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	mA	†μ <sub>g1-g2</sub>	mA/V	kΩ	Ω	W
EBF89	Double Diode Pentode	1	M	6.3	0.3	250	100	2	9		3.8			
EC90/6C4	Triode V.H.F. Power	2		6.3	0.15	250		8.5	10.5	17	2.2			
ECC81/12AT7	Double Triode V.H.F.	3	C	6.3*	0.3*	250		2	10	55	5.5			
ECC82/12AU7	Double Triode A.F.	3	C	6.3*	0.3*	250		8.5	10.5	17	2.2			
ECC83/12AX7	Double Triode High μ A.F.	3	C	6.3*	0.3*	250		1.2	100	1.6				
ECC84	Double Triode V.H.F.	4	M	6.3	0.335	90		1.5	12	24	6			
ECC85	Double Triode V.H.F.	5	M	6.3	0.435	230		2	10	58	6			
ECC88	Double Triode V.H.F.	5	C	6.3	0.365	90		1.3	15	33	12.5			
ECC189	Double Triode V.H.F. High Slope	5	C	6.3	0.365	90		1.4	15	34	12.5			
ECC804	Double Triode G.P.	5	C	6.3	0.3	200		7.7	10	18	3.4			
ECC807	Double Triode A.F.	6	C	6.3	0.3	250		1.5	1.3	150	2.4			
ECF80	Triode Pentode V.H.F.	7	M	6.3	0.43	{(p)170 (t)100}	170	2	10	47†	6.2			
ECF82	Triode Pentode V.H.F. F.C.	7	M	6.3	0.45	{(p)250 (t)150}	110	10	10	40	5.2		68	56
ECF86	Triode Pentode V.H.F.	8	M	6.3	0.34	{(p)170 (t)100}	150	1.2	10	70†				
ECF804	Triode Pentode	7	M	6.3	0.45	{(p)150 (t)150}	150	2	7	55†	11			
ECH42	Triode Hexode H.F. F.C.	9	M	6.3	0.23	{(h)250 (t)250}	85	2	3	0.75†				
ECH81	Triode Heptode H.F. F.C.	10	M	6.3	0.3	{(h)250 (t)100}	100	2	6.5	20†	2.4			
ECH84	Triode Heptode	11	C	6.3	0.3	{(h)135 (t)50}	14	0	1.7	3.2	2.2			
ECL80	Triode Pentode A.F.	12	M	6.3	0.3	{(p)200 (t)100}	200	8	17.5	14†	3.3			
ECL82	Triode Beam Tetrode	13	C	6.3	0.78	{(p)200 (t)100}	200	16	35	9.5†	6.4			
ECL83	Triode Pentode	14	Mo	6.3	0.6	{(p)170 (t)170}	170	9.5	30	5.5	5.5			
ECL86	Triode Pentode A.F.	15	C	6.3	0.66	{(p)250 (t)250}	250	7	36	21†	10			
EE80	Beam Tetrode Video	16	C	6.3	0.3	180	180	1.9	1.2	100	1.6			
EF41	Pentode Vari-mu H.F.	17	O	6.3	0.2	250	100	2.5	10	12.5	2.2			

† Alternative column heading.



**22**

**23**

**24**

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**27**

**28**

Answer = (16) = 141230650  
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 + ECC83

Sales Classification: C=Current type, M=Maintenance type, Mo=Obsolete type, O=Obsolete type, SQ=Special Quality.

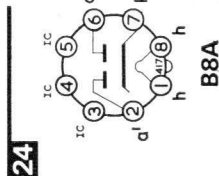
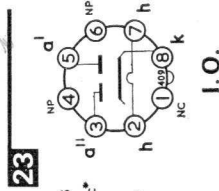
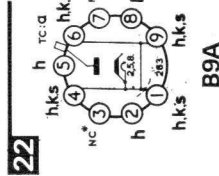
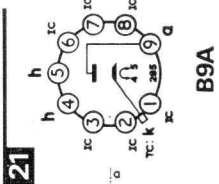
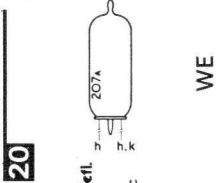
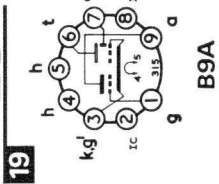
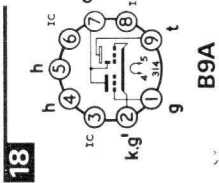
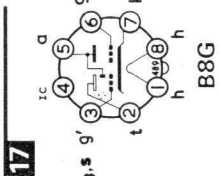
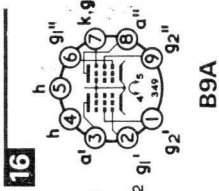
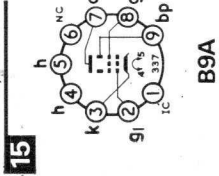
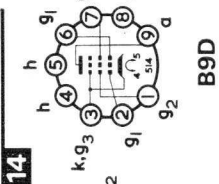
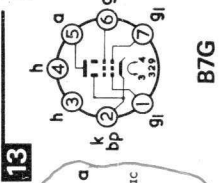
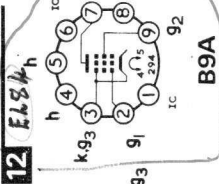
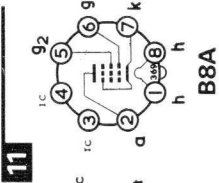
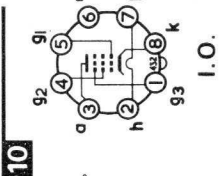
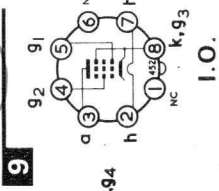
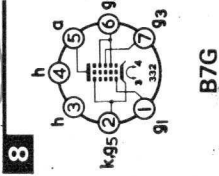
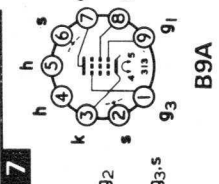
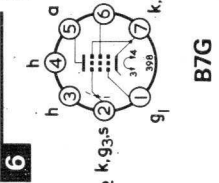
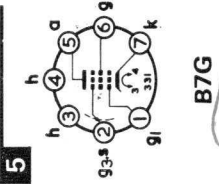
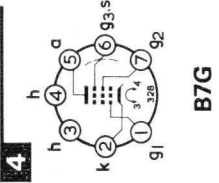
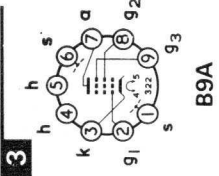
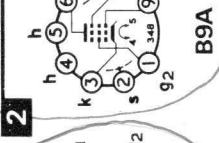
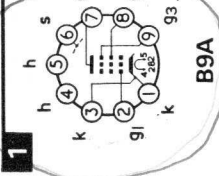
Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	-V <sub>g1</sub>	I <sub>a</sub>	μ	g <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	mA	†μg <sub>1-g2</sub>	mA/V	kΩ	Ω	W
EF80	Pentode V.H.F.	1	C	6.3	0.3	250	250	3.5	10	50†	6.8			
EF85	Pentode Vari-mu V.H.F.	1	M	6.3	0.3	250	100	2	10	25†	6			
EF86	Pentode Low Noise	2	C	6.3	0.2	250	140	2	3	38†	2			
EF89	Pentode Vari-mu V.H.F.	3	M	6.3	0.2	250	100	2	9	70†	3.6			
EF91/6AM6	Pentode R.F.	4	C	6.3	0.3	250	250	2	10	7.5	7.5	160		
EF93/6BA6	Pentode Vari-mu H.F.	5	M	6.3	0.3	250	100	1	11	4.4	4.4	68		
EF94	Pentode H.F.	5	M	6.3	0.3	250	150	1	10.8	41†	5.2			
EF95/6AK5	Pentode V.H.F.	6	M	6.3	0.175	180	120	2	7.7	5.1	5.1	68		
EF183	Pentode Vari-mu V.H.F.	1	C	6.3	0.3	200	90	2	12	12.5	12.5	180		
EF184	Pentode V.H.F.	1	C	6.3	0.3	200	200	2.5	10	60†	15			
EF804	Pentode A.F.	7	Mo	6.3	0.2	250	140	2	3	2	2			
EH90	Heptode H.F.	8	C	6.3	0.3	100	30	1.5	0.75	1.2	1.2			
EK90/6BE6	Heptode H.F.	8	M	6.3	0.3	250	100	1.5	3	0.475†	10	150	3.75	
EL33/6AG6G	Pentode Power	9	O	6.3	1.2	250	250	6	32	11†	11	8.5		
EL34	Pentode A.F. Output	10	C	6.3	1.5	250	250	12.2	100					
EL41	Pentode Output	11	O	6.3	0.7	250	250	7	36			7	4.2	
EL84	Pentode Output	12	C	6.3	0.76	250	250	7.3	48			5.2	1.40	
EL90/6AQ5	Beam Tetrode	13	M	6.3	0.45	250	250	12.5	45	10†	4.1	5	2.40	4.5
EL506	Pentode Power	14	C	6.3	0.8	300	300	10	60			3	10	
EL821/6CH6	Pentode Output	15	C	6.3	0.75	250	250	4.5	40	26†	11			
ELL80	Double Pentode A.F.	16	M	6.3	0.35	250	250	9	24	17†	6	10		3†
EM71	Tuning Indicator	17	O	6.3	0.3	250		0/20	0.5					
EM81	Tuning Indicator	18	O	6.3	0.3	250	250	1/10.5	0.02					
EM84	Tuning Indicator	19	M	6.3	0.21	250	250	0/22	0.06					
EM85	Tuning Indicator	19	O	6.3	0.3	200		0/14	0.1					
EM87	Tuning Indicator	19	C	6.3	0.3	250	250	0/15	0.2					
EM840	Tuning Indicator	19	M	6.3	0.25	250	250	0/22	0.3					
EY51/R12	E.H.T. Rectifier	20	M	6.3	0.09		17,000†		3†					
EY83	Booster Diode	21	M	6.3	1		5,000†		175†					
EY86	E.H.T. Rectifier	22	C	6.3	0.09		22,000†		0.8†					
EY87	E.H.T. Rectifier	22	C	6.3	0.09		22,000†		0.8†					
EZ35/6X5GT	F.W. Rectifier	23	M	6.3	0.6	325†								
EZ40	F.W. Rectifier	24	O	6.3	0.6	350†								

§V<sub>a</sub>3=0 †Each section ‡Alternative column heading

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EF80

EF86



AVD+

EF80 - 141.230.651.

EF84 = 441231615

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EF86 = 501236014

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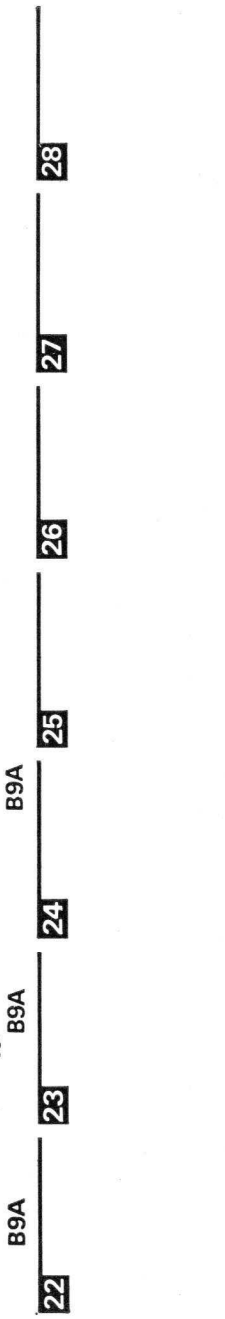
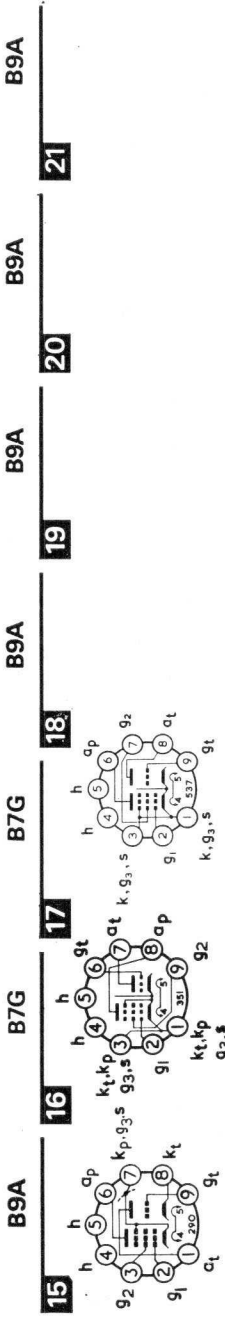
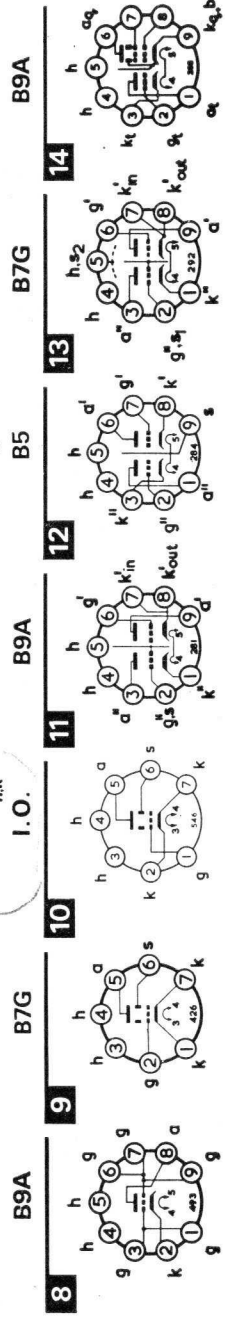
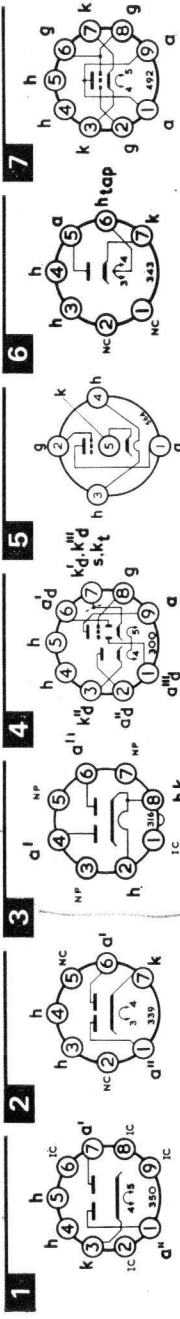
Sales Classification: C=Current type, M=Maintenance type, Mo=Obsolescent type, O=Obsolete type, SQ=Special Quality.

Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	-V <sub>g1</sub>	I <sub>a</sub>	μ	g <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	mA	†μg <sub>1</sub> -g <sub>2</sub>	mA/V	kΩ	Ω	W
EZ80	F.W. Rectifier	1	M	63	0.6	350†			90†					
EZ81	F.W. Rectifier	1	M	63	0.6	350†			150†					
EZ90/6X4	F.W. Rectifier	2	C	63	0.6	325†			70†					
GZ34	F.W. Rectifier	3	C	5	1.9	550†			225†					
HABC80	Triode Diode Triode	4	O	19	0.15	250		3	1	70	12			
HLA2	Triode	5	O	4	1	100		0	1	50	5.5			400
HY90	H.W. Rectifier	6	M	35	0.15	117†			100†					
PA1	Triode	5	O	4	1	100		0	12	13	12			260
PC86	Triode U.H.F.	7	C	38	0.3	175		1.5	12	68	14			
PC88	Triode U.H.F.	8	C	38	0.3	160		1.25	12.5	65	13.5			
PC97	Triode V.H.F.	9	C	45	0.3	135		1	41	55	13			
PC900	Triode V.H.F.	10	M	4	0.3	135		1	11.5	72	14.5			
PCC84	Double Triode V.H.F.	11	M	7	0.3	90		1.5	12	24	6			
PCC85	Double Triode	12	Mo	9	0.3	200		2.1	10	48	5.8			
PCC88	Double Triode V.H.F.	12	C	7	0.3	90		1.3	15	33	12.5			
PCC89	Double Triode V.H.F.	11	M	7.5	0.3	90		1.2	15	36	12.3			
PCC189	Double Triode V.H.F.	12	M	7.6	0.3	90		1.4	15	34	12.5			
PCC806	Double Triode V.H.F.	13	C	7.2	0.3	75			15	40	16.5			
PCE82	Triode Beam Tetrode	14	C	10	0.3	(p)180 (t)150	180	2.9 4.9	10 10	18 18	12.5 3.7			
PCF80	Triode Pentode V.H.F.	15	C	9	0.3	(p)170 (t)100	170	2 2	10 14	47† 20	6.2 5			
PCF82	Triode Pentode F.C. V.H.F.	15	M	9.5	0.3	(p)250 (t)150	110		10 18	5.2 40	5.2 8.5			68 56
PCF86	Triode Pentode V.H.F.	16	M	8	0.3	(p)170 (t)100	150	1.2 3	10 14	70† 5.7	12 17			
PCF801	Triode Pentode V.H.F.	17	M	8.5	0.3	(p)170 (t)100	120	1.4 3	10 15	55† 20	11 9			
PCF802	Triode Pentode	15	M	9	0.3	(p)100 (t)200	100	1 2	6 3.5	47† 70	5.5 3.5			

†Alternative column heading.

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Sales Classification: C=Current type, M=Maintenance type, Mo=Obsolete type, O=Obsolete type, SQ=Special Quality.

Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	-V <sub>g1</sub>	I <sub>a</sub>	μ	ε <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	mA	μg <sub>1-g2</sub>	mA/V	kΩ	Ω	W
						†V <sub>rms</sub> (max) per anode	†P.I.V. (max)	†I <sub>out</sub> (max) per anode						
PCF805	Triode Pentode V.H.F.	1	C	7-4	0.3	{(p)125 (t)100}	125	1-5	10	50†	11			
PCL82	Triode Beam Tetrode	2	C	16	0.3	{(p)200 (t)100}	200	16	35	9.5†	5-5			
PCL83	Triode Pentode	3	M	12.6	0.3	{(p)170 (t)250}	170	9.5	30	10†	5-5			
PCL84	Triode Pentode	4	C	15	0.3	{(p)170 (t)200}	170	2-1	18	36†	11			
PCL85	Triode Pentode	5	C	18	0.3	{(p)170 (t)100}	170	1.5	41	7†	7-5			
PCL86	Triode Pentode A.F.	6	C	13.6	0.3	{(p)230 (t)230}	230	5-7	39	21†	10-5			
PENAI	Pentode Power A.F.	7	O	4	1	250	250	16-5	32	100	1-6	8	450	2-7
PFL200	Double Pentode	8	M	16.5	0.3	{(l)170 (f)150}	170	2-6	30	32†	21			
PL36	Pentode Line Output	9	C	25	0.3	100	100	8-2	100	35†	8-5			
PL81	Pentode Line Output	10	M	21.5	0.3	200	200	28	40	5-5†	6			
PL81A	Pentode Line Output	10	C	21.5	0.3	170	170	24-3	45	6-2	6-2			
PL82	Pentode A.F. Output	11	M	16.5	0.3	170	170	10-4	53	10†	9	3		4
PL83	Pentode Video Output	12	M	15	0.3	200	200	3-5	36	24†	10			
PL84	Pentode Field Output	11	M	15	0.3	170	170	12-5	70	8†	11			
PL302	Beam Tetrode Line Output	13	C	25	0.3	7k(pk) max	2k(pk) max		200 lk (max)					
PL500 PL504	Pentode Line Output	14	C	27	0.3	75	200	10	440					
PM84	Tuning Indicator	15	Mo	4.5	0.3	170	0/15	0/15	0-04					
PY32	H.W. Rectifier	16	M	29	0.3	250†			300†					
PY33	H.W. Rectifier	16	M	29	0.3	250†			220†					
PY81	Efficiency Diode	17	M	17	0.3		4,500†		150†					
PY82	H.W. Rectifier	18	M	19	0.3	250†			240†					
PY83	Efficiency Diode	17	M	20	0.3		5,000†		175†					
PY88	Efficiency Diode	17	C	30	0.3		6,600†		220†					
PY800	Efficiency Diode	17	C	19	0.3		5,250†		150†					
PY801	Efficiency Diode	17	C	19	0.3		5,500†		175†					
R1	F.W. Rectifier	19	O	4	1	250†			120†					
R2	F.W. Rectifier	19	Mo	4	2.5	350†			120†					

†Alternative column heading.

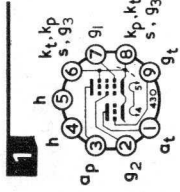


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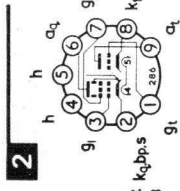
PC684

PC285

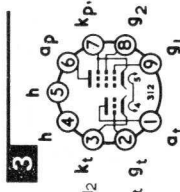
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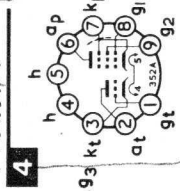
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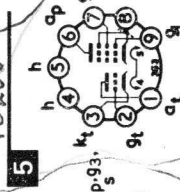
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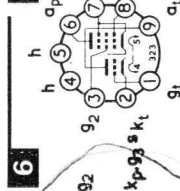
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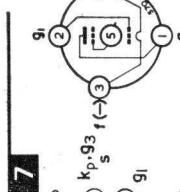
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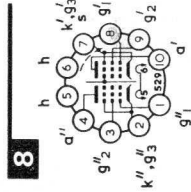
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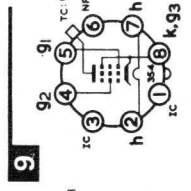
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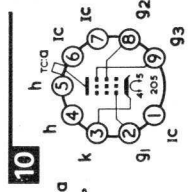
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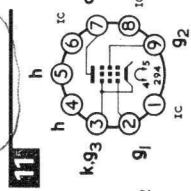
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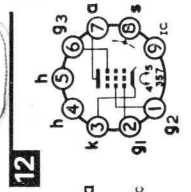
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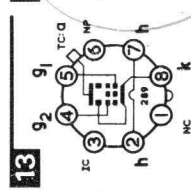
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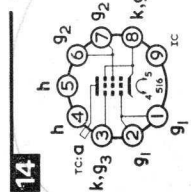
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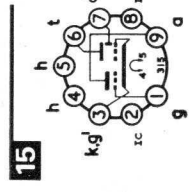
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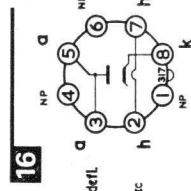
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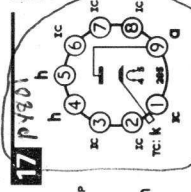
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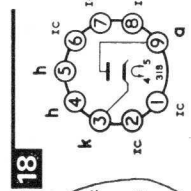
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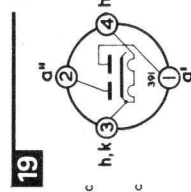
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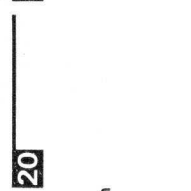
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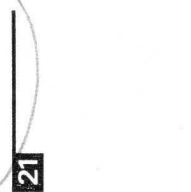
B9A



B4



I.O.



B9D

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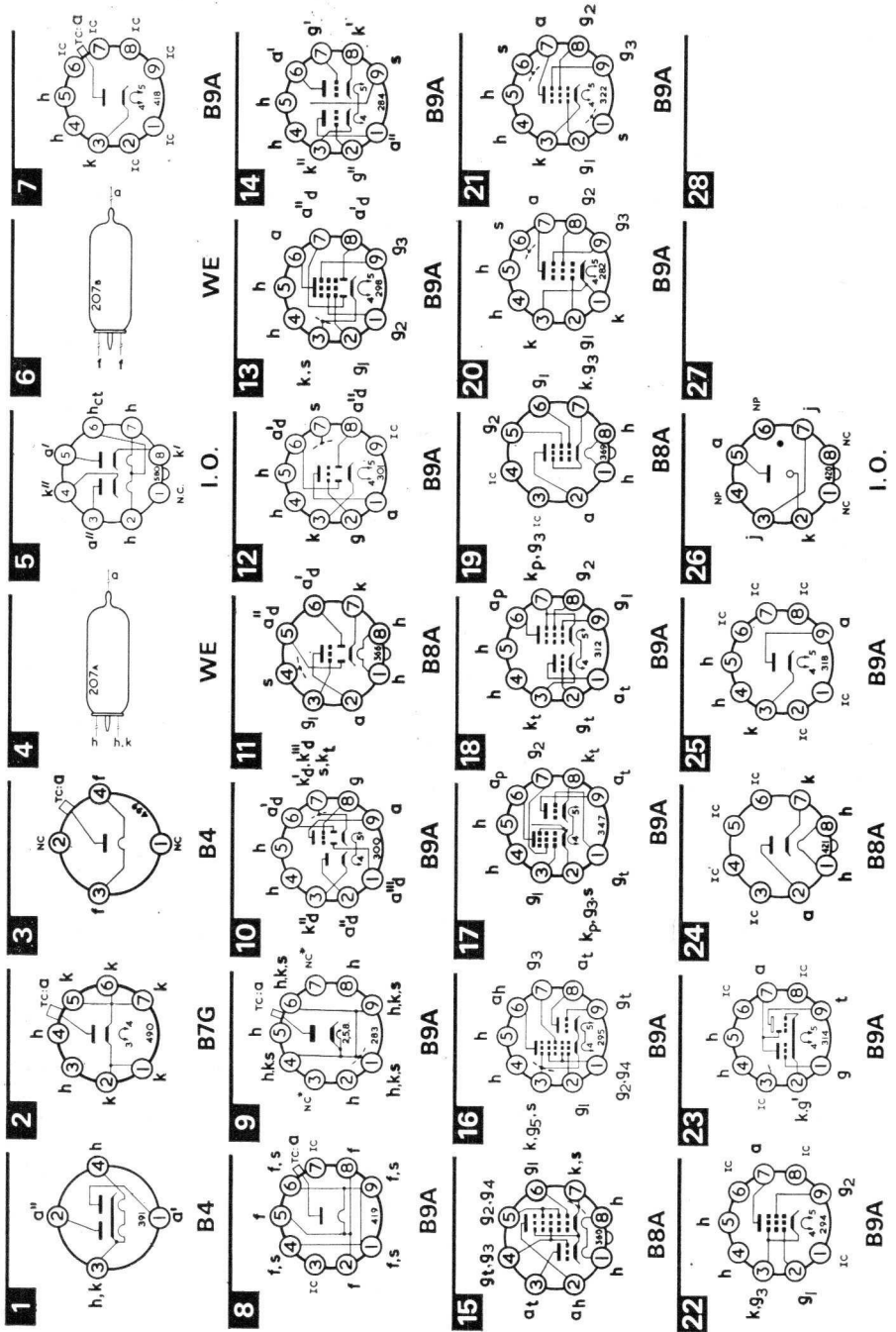
PY801 008 230 008 TC-C

PY81-080 230 008 TC-C

Sales Classification: C = Current type, M = Maintenance type, Mo = Obsolete type, O = Obsolete type, SQ = Special Quality.

Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	-V <sub>g1</sub>	I <sub>a</sub>	μ	g <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	mA	†/μg <sup>1-g2</sup>	mA/V	kΩ	Ω	W
R3	F.W. Rectifier	1	Mo	4	2.5	500†			120†					
R10	H.W. Rectifier	2	O	4	0.5	5,500†			5†					
R11	H.W. Rectifier	3	O	4	1.1	5,000†			50†					
R12	E.H.T. Rectifier	4	M	6.3	0.09		17,000†		3†					
R14	F.W. Rectifier	5	O	52	0.3	240†			200†					
R16	E.H.T. Rectifier	6	O	1.4	0.14		15,000†		2†					
R17	H.W. Rectifier	7	O	6.3	0.8	350†			125†					
R18	H.W. Rectifier	7	M	6.3	1.1	500†			150†					
R19	E.H.T. Rectifier	8	M	1.25	0.2		25,000†		2†					
R20	E.H.T. Rectifier	9	M	2	0.35		22,000†		0.8†					
UABC80	Triple Diode Triode	10	M	28	0.1	200		2.3	1	70	1.4			
UBC41	Double Diode Triode	11	M	14	0.1	170		1.6	1.5	70	1.65			
UBC81	Double Diode Triode	12	M	14	0.1	170		1.6	1.5	70	1.65			
UBF89	Double Diode Pentode	13	M	19	0.1	200		1.5	11	20†	4.5			
UCC85	Double Triode V.H.F.	14	M	26	0.1	170		1.5	10	50	6.2			
UCH42	Triode Hexode H.F. F.C.	15	M	14	0.1	{(h)200 (h)200 (h)170	85	2	3		0.75†	22		
UCH81	Triode Heptode H.F. F.C.	16	M	19	0.1	{(h)100 (h)100	102	2.2	5.2	20†	2.3			
UCL82	Triode Pentode A.F.	17	M	50	0.1	{(p)200 (p)100	200	16	35	9.5†	6.4			
UCL83	Triode Pentode A.F.	18	M	38	0.1	{(p)170 (p)170	170	9.5	30	10†	5.5			
UF41	Pentode H.F.	19	Mo	12.6	0.1	200	116	3	1.6	82	2.1			
UF80	Pentode H.F.	20	O	19	0.1	200	200	2.55	7.2	2.3	7.1			
UF89	Pentode Vari-mu F.H.	21	M	12.6	0.1	170	110	2	12	21	3.8			
UL41	Pentode A.F. Output	19	M	45	0.1	170	170	10.4	53	9.5	3			4.2
UL84	Pentode A.F. Output	22	C	45	0.1	170	170	12.5	70	10	2.4	170		5.6
UM80	Tuning Indicator	23	Mo	19	0.1	200		1/14	0.01					
UY41	H.W. Rectifier	24	M	31	0.1	220†			100†					
UY85	H.W. Rectifier	25	C	38	0.1	250†			110†					
VR75/30	Voltage Regulator	26	M			75\$			5 to 40†					
VR105/30	Voltage Regulator	26	M			105\$			5 to 40†					
VR150/30	Voltage Regulator	26	M			150\$			5 to 40†					

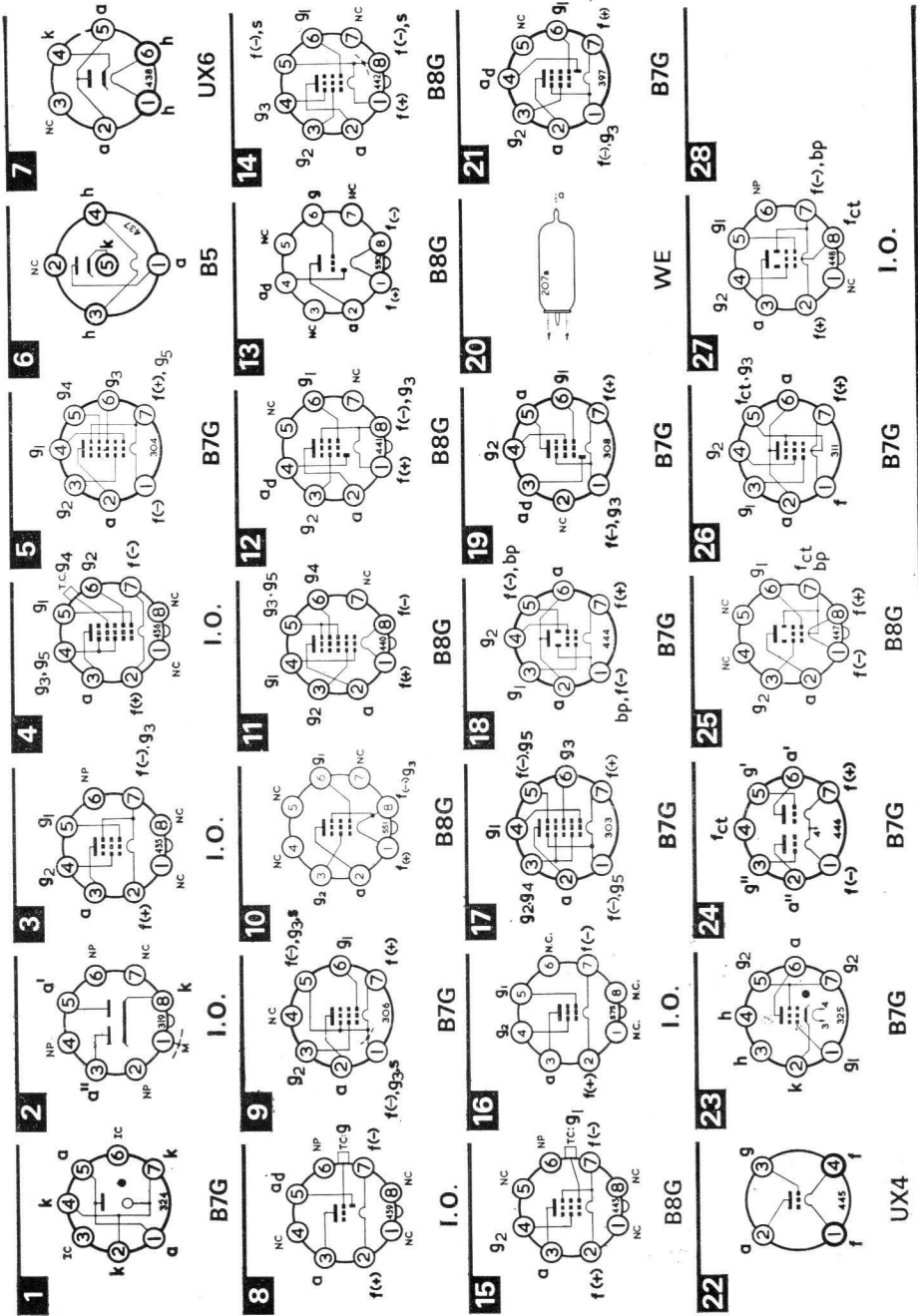
\$ Operating Voltage. † Current range. ‡ Alternative column heading.



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Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	I <sub>a</sub>	μ	g <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	mA	†μg <sub>1</sub> -g <sub>2</sub>	mA/V	kΩ	Ω	W
<b>OA2</b>	Voltage Regulator	1	M			150†		5 to 30§					
<b>OB2</b>	Voltage Regulator	1	M			108†		5 to 30§					
<b>OZ4</b>	F.W. Rectifier	2	Mo			350†		75†					
<b>1A5G 1A5GT</b>	Battery Power Pentode	3	O	1-4	0-05	90	90	4-5	4	0-85	25		0-115
<b>1A7G 1A7GT</b>	Battery Heptode	4	O	1-4	0-05	90	45	0	0-55	0-25†			
<b>1A6</b>	Battery Heptode F.C.	5	M	1-4	0-05	85	60	0/6	0-7	0-325			
<b>1C5G 1C5GT</b>	Battery Power Pentode	3	O	1-4	0-1	90	90	7-5		1-55	8		0-24
<b>ID5</b>	H.W. Rectifier	6	O	40	0-2	250†			100†				
<b>ID6</b>	H.W. Rectifier	7	O	25	0-3	250†			100†				
<b>1H5G 1H5GT</b>	Battery Diode Triode	8	O	1-4	0-05	90	67-5	0	0-15	0-275			
<b>1L4</b>	Battery Pentode H.F.	9	O	1-4	0-05	90	45	0	2-9	0-925	25		0-115
<b>1LA4E</b>	Battery Power Pentode	10	O	1-4	0-05	90	90	4-5	4	0-85			
<b>1LA6 1LA6E</b>	Battery Heptode F.C.	11	O	1-4	0-05	90	45	0	0-55	0-25†			
<b>1LD5</b>	Battery Diode Pentode	12	O	1-4	0-05	90	45	0	0-6	0-58			
<b>1LH4</b>	Battery Diode Triode	13	O	1-4	0-05	90	90	0	0-15	0-275			
<b>1LN5 1LN5E</b>	Battery Pentode H.F.	14	O	1-4	0-05	90	90	0	1-6	0-8			
<b>1NSG 1NSGT</b>	Battery Pentode H.F.	15	O	1-4	0-05	90	90	0	1-2	0-75			
<b>1Q5GT</b>	Battery Beam Tetrode	16	O	1-4	0-1	90	90	4-5	9-5	2-2	8		0-27
<b>1R5</b>	Battery Heptode F.C.	17	M	1-4	0-05	90	67-5		1-6	0-3†			
<b>IS4</b>	Battery Beam Tetrode	18	Mo	1-4	0-1	90	67-5	7	7-4	1-58	8		0-27
<b>IS5</b>	Battery Diode Pentode	19	M	1-4	0-05	67-5	67-5	0	1-6	0-625			
<b>1T2/R16</b>	E.H.T. Rectifier	20	O	1-4	0-14	15,000†			2†				
<b>1T4</b>	Battery Pentode Vari-mu	9	M	1-4	0-05	90	67-5	0	3-5	0-9			
<b>1U5</b>	Battery Diode Pentode	21	Mo	1-4	0-05	90	67-5	0		0-63			
<b>2A3</b>	Battery Triode Power	22	O	2-5	2-5	250	0	45	60	5-25	2-5	750	3-5
<b>2D21</b>	Insert Gas Thyatron	23	M	6-3	0-6	460		6					
<b>3A5</b>	Double Triode	24	O	1-4*	0-22*	90		2-5	3-7	1-8			
<b>3D6</b>	Battery Beam Tetrode	25	O	1-4*	0-22*	135	90	4-5	9-8	2-4	12		0-5
<b>3Q4</b>	Battery Beam Tetrode	26	Mo	1-4*	0-1*	90	90	4-5	9-5	2-15	10		0-27
<b>3Q5G 3Q5GT</b>	Battery Beam Tetrode	27	O	1-4*	0-1*	90	90	4-5	9-5	2-2	8		0-27

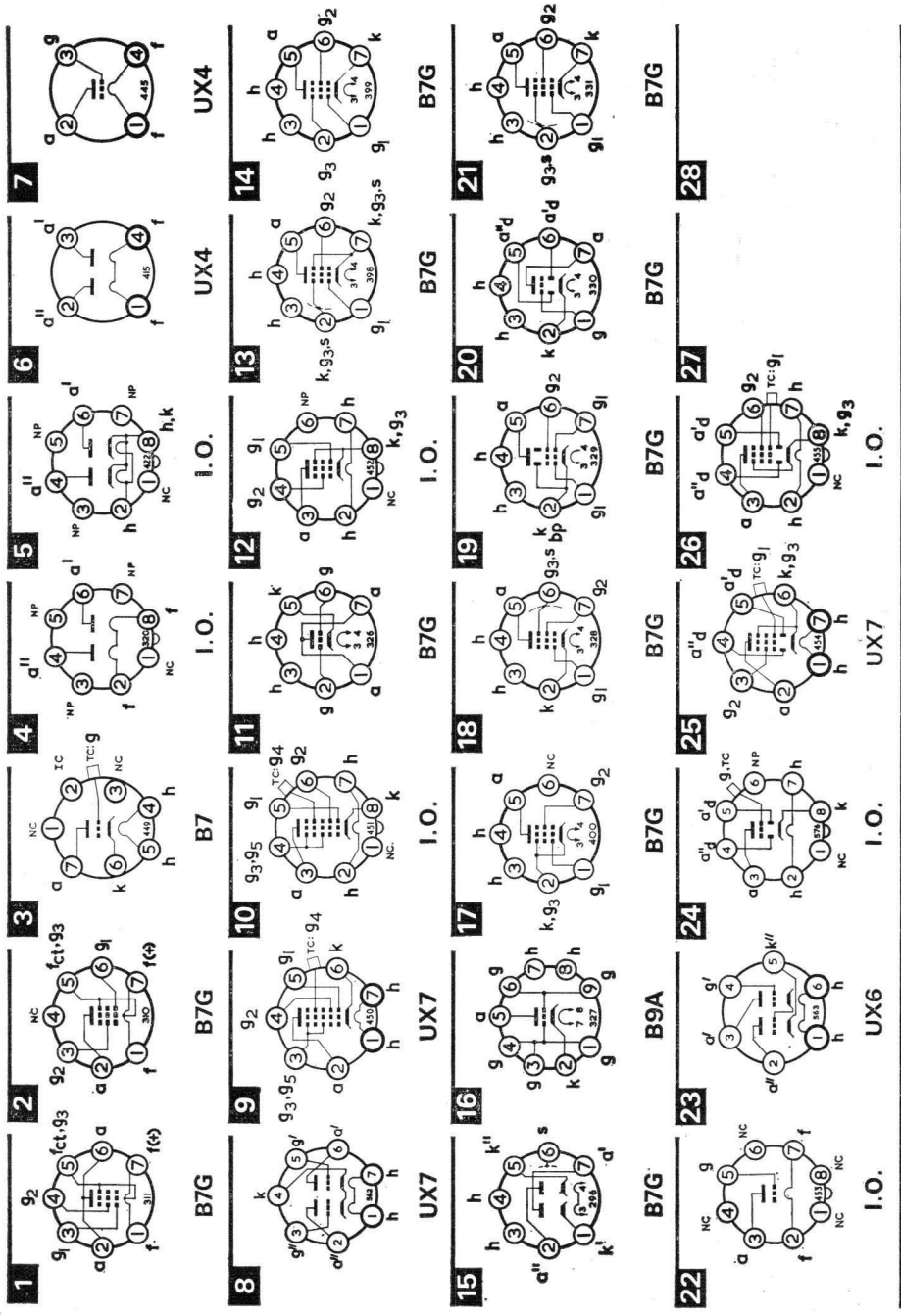
†Operating voltage. ‡Alternative column heading. §Current range.



Sales Classification: C=Current type, M=Maintenance type, Mo=Obsolete type, O=Obsolete type, SQ=Special Quality.

Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	-V <sub>g1</sub>	I <sub>a</sub>	μ	g <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	mA	†μ/g <sub>1-g2</sub>	mA/V	k.Ω	k.Ω	W
354	Battery Beam Tetrode	1	M	1.4*	0.1*	90	67.5	7	7.4		1.58	8		0.27
3V4	Battery Beam Tetrode	2	M	1.4*	0.1*	90	90	4.5	7.7		2	10		0.24
4D1	Triode	3	O	13	0.2	250		3	10	40	4		300	
5R4GY	F.W. Rectifier	4	C	5	2	750†			250†					
5U4G	F.W. Rectifier	4	C	5	3	450†			225†					
5V4G	F.W. Rectifier	5	C	5	2	375†			175†					
5Y3GT	F.W. Rectifier	4	M	5	2	350†			125†					
5Z3	F.W. Rectifier	6	O	5	3	450†			225†					
5Z4G	F.W. Rectifier	5	C	5	2	350†			125†					
6A3	Triode Output	7	O	6.3	1	250		45	60	35	5.25	2.5	750	3.5
6A6	Double Triode	8	O	6.3	0.8	250		5	3		1.6	30	1,000	0.2
6A7 6A7E	Heptode F.C.	9	O	6.3	0.3	250	100	3	3.5		0.55†		300	
6A8G	Heptode F.C.	10	Mo	6.3	0.3	250	100	3	3.5		0.55†		300	
6AP4A	Triode U.H.F.	11	M	6.3	0.225	100			20	16	7.5		150	
6AG6G	Pentode Power	12	O	6.3	1.2	250	250	6	32		10	8.5	150	3.75
6AK5	Pentode V.H.F.	13	M	6.3	0.175	180	120		7.7	10.5†	5.1	10	180	1.1
6AK6	Pentode Power A.F.	14	M	6.3	0.15	180	180	9	15		2.3	10	520	
6AL5	Double Diode	15	C	6.3	0.3	150†			9†					
6AM4	Triode U.H.F.	16	C	6.3	0.225	200			10	85	9.8		100	
6AM5	Pentode Power A.F.	17	M	6.3	0.2	250	250	13.5	16	12.†	2.6	16	680	1.4
6AM6	Pentode V.H.F.	18	C	6.3	0.3	250	250	2	10	70.†	7.5		160	
6AG5	Beam Tetrode Output	19	M	6.3	0.45	250	250	12.5	45	10.†	4.1	5	2.40	4.5
6AT6	Double Diode Triode	20	M	6.3	0.3	250		3	1	70	1.2			
6AU6	Pentode H.F.	21	M	6.3	0.3	250	150	1	10.8	41.†	5.2		68	
6AV6	Double Diode Triode	20	M	6.3	0.3	250		2	1.2	100	1.6			
6B4G	Triode Power	22	O	6.3	1	250		45	60	4.2	5.25	2.5	750	3.5
6B5	Double Triode	23	O	6.3	0.8	300		0	58	2.4		7		4
6B6G	Double Diode Triode	24	O	6.3	0.3	250		2	0.9	100	1.1			
6B7E 6B7S	Double Diode Pentode	25	O	6.3	0.3	250	125	3	9		1.12		250	
6B8G 6B8GT	Double Diode Pentode	26	O	6.3	0.3	250	125	3	9		1.12		250	

†Alternative column heading.

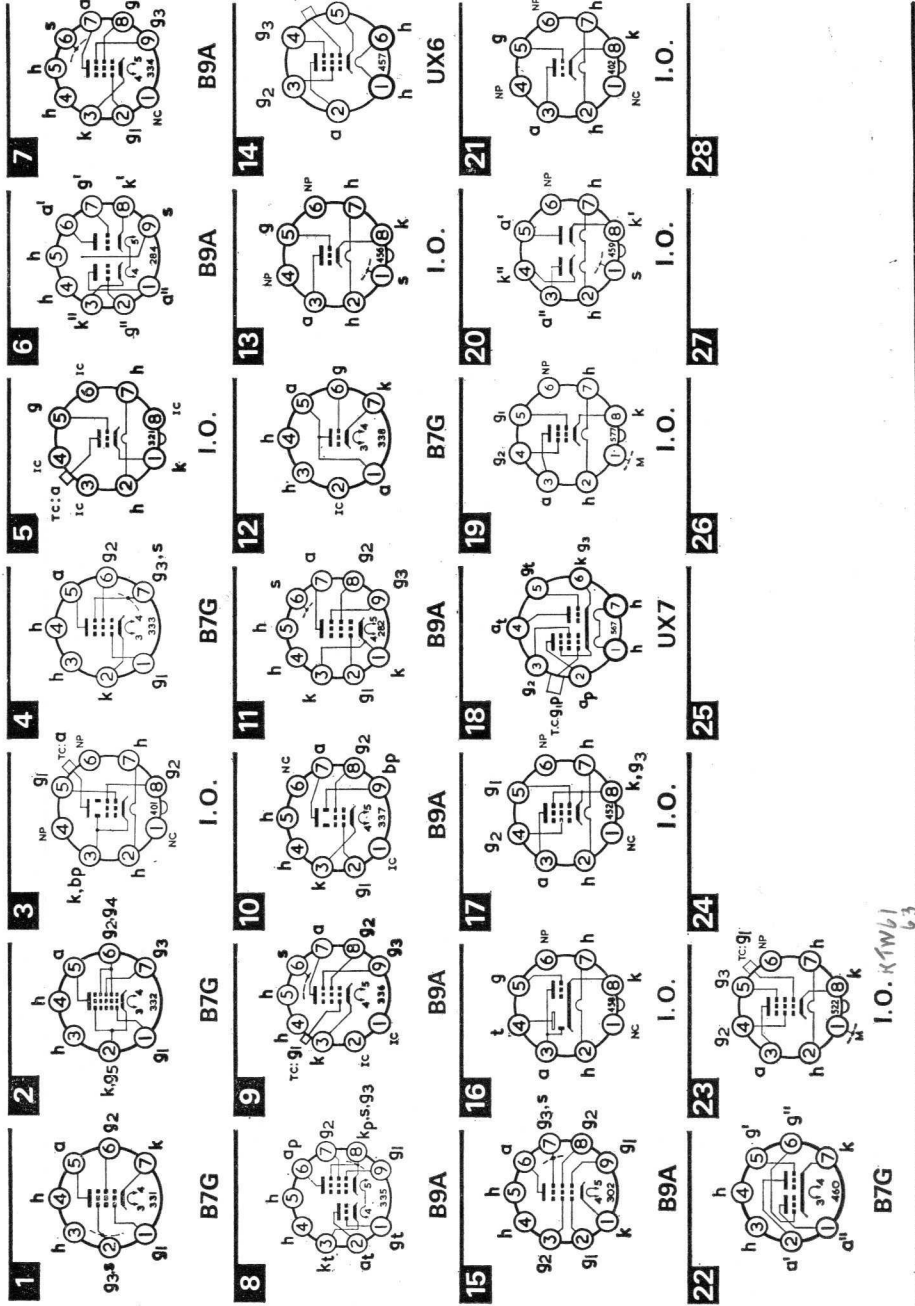


Sales Classification: C=Current type, M=Maintenance type, Mo=Obsolete type, O=Obsolete type, SQ=Special Quality.

Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	I <sub>a</sub>	μ <sub>s</sub>	g <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	ma	†μg1-g2	mA/V	kΩ	Ω	W
6BA6	Pentode Vari-mu H.F.	1	C	6:3	0:3	250	100	11		4.4			68
6BE6	Heptode F.C.	2	C	6:3	0:3	250	100	1.5		0.475			
6BG6G	Tetrode Line Output	3	O	6:3	0:9	300	250	18		6			
6BH6	Pentode H.F.	4	C	6:3	0:15	250	150	1	7.4	4.6		100	
6BJ6	Pentode Vari-mu H.F.	4	C	6:3	0:15	250	100	1	9.2	3.8		82	
6BK4	E.H.T. Voltage Regulator	5	Mo	6:3	0:2	V <sub>out</sub> 25k		I <sub>a</sub> (max) 1.5					
6BG7A	Double Triode V.H.F.	6	C	6:3	0:4	150			39	6.4		220	
6BR7	Pentode A.F.	7	C	6:3	0:15	250	100	3	2.1	1.25			
6BR8	Triode Pentode A.F.	8	C	6:3	0:45	{(p)170 (b)150}	110	9.5	33†	5.25		80	
6BS7	Pentode A.F.	9	C	6:3	0:15	250	100	3	2.1	1.25		1100	
6BW6	Beam Tetrode	10	C	6:3	0:45	250	250	47	40	8.5	5	240	4.5
6BW7	Pentode V.H.F.	11	C	6:3	0:3	250	250	9.5	70†	8.5		180	
6C4	Triode V.H.F. Power	12	M	6:3	0:15	250	250	10.5	17	2.2			5.5†
6C5G	Triode	13	O	6:3	0:3	250	250	8	20	2	1		
6C6	Pentode H.F.	14	Mo	6:3	0:3	250	100	3	2	1.2	1.2		
6CD6G	Beam Tetrode Line Output	3	M	6:3	2.5	200	150	30	3.5†	6.7			
6CH6	Beam Tetrode Video	10	C	6:3	0:75	250	250	4.5	40	26†			
6CL6	Pentode Video Power	15	C	6:3	0:65	250	150	3	30	11	7.5		2.8
6D6	Pentode Vari-mu	14	O	6:3	0:3	250	100	3	8.2	1.6	0.33		
6E5GT	Tuning Indicator	16	O	6:3	0:3	250	250	0/8					
6F6G	Pentode Power	17	Mo	6:3	0:7	250	250	16.5	34	2.5	7	410	3.2
6F7 6F7B 6F7E	Triode Pentode	18	O	6:3	0:3	{(p)250 (b)100}	100	3	6.5	1.1			
6G5G/6U5G	Tuning Indicator	16	O	6:3	6:3	250	180	0/22	10.6	0.53			
6G6G	Pentode Power	19	O	6:3	0:15	180	180	9	15	2.3	10		1.1
6H6G 6H6GT	Double Diode	20	Mo	6:3	0:3	117†			8†				
6J5G	Triode G.P.	21	Mo	6:3	0:3	250	250	8	9	20	2.6		
6J6	Double Triode	22	O	6:3	0:45	100			8.5	38	5.3	50	
6J7G 6J7GT	Pentode H.F.	23	Mo	6:3	0:3	250	100	3	2	1.25			
6K6 6K6G	Pentode Output	17	O	6:3	0:4	250	250	18	32	2.3	7.6	500	3.4
6K7G 6K7GT	Pentode Vari-mu H.F.	23	Mo	6:3	0:3	250	125	3	10.5	1.65		220	

†Class C R.F. amplifier. ‡Alternative column heading.





Sales Classification: C=Current type, M=Maintenance type, Mo=Obsolete type, O=Obsolete type, SQ=Special Quality.

Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	-V <sub>g1</sub>	I <sub>a</sub>	μ	g <sub>m</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	mA	†μg1-g2	mA/V	kΩ	Ω
						†V <sub>rms</sub> (max) per anode	†P.I.V. (max)		†I <sub>out</sub> (max) per anode		†g <sub>c</sub>		W
6K8G 6K8GT	Triode Hexode H.F. F.C.	1	Mo	6.3	0.3	250	100	3	2.5		0.36†	300	
6L6G 6L6GA	Beam Tetrode Output	2	M	6.3	0.9	250	250	14	72		6	2.5	170
6L7G	Pentagrid	3	O	6.3	0.3	250	150	3	3.3		0.35†		6.5
6N6G	Double Triode	4	O	6.3	0.8	300		0		58	2.4	7	4
6N7G 6N7GT	Double Triode	5	O	6.3	0.8	250		3	3	35	1.6	30	0.2
6Q7G 6Q7GT	Double Diode Triode	6	O	6.3	0.3	250		0	1	70	1.2		
6R7G	Double Diode Triode	6	O	6.3	0.3	250		9	9.5	16	1.9		
6S7 6S7GT	Double Triode	7	O	6.3	0.3	250		2	2	70	1.32		
6S7G 6S7GT	Pentode H.F.	8	O	6.3	0.3	250	150	2.5	9.2		4		
6SH7	Pentode H.F.	8	O	6.3	0.3	250	150	1	10.8		4.9		
6SJ7	Pentode H.F.	9	O	6.3	0.3	250	100	3	3		1.6		
6SK7	Pentode H.F.	9	O	6.3	0.3	250	100	3	9.2		2		
6SL7GT	Double Triode A.F.	10	M	6.3	0.3	250		2	2.3	70	1.6		
6SN7GT	Double Triode A.F.	10	M	6.3	0.6	250		8	9	20	2.6		
6SQ7	Double Diode Triode	11	O	6.3	0.3	250		2	0.9	100	1.1		
6T8	Triple Diode Triode	12	O	6.3	0.45	250		3	1	70	1.2		
6U4GT	Efficiency Diode	13	M	6.3	1.2	250	3,850†	0.22	138†				
6U5/6G5	Tuning Indicator	14	Mo	6.3	0.3	250		0.22	0.24				
6U5G/6G5G	Tuning Indicator	15	Mo	6.3	0.3	250		0.22	0.24				
6U7G	Pentode Vari-mu H.F.	16	O	6.3	0.3	250	100	3	8.2		1.6	330	
6V6 6V6GT	Beam Tetrode Output	2	M	6.3	0.45	250	250	12.5	45		4.1	5	240
6X4	F.W. Rectifier	17	M	6.3	0.6	325†			70†				4.5
6X5GT	F.W. Rectifier	18	M	6.3	0.6	325†			70†				
6Z4	F.W. Rectifier	19	O	6.3	0.5	450†			60†				
7A2	Pentode Output	20	O	4	1.2	250	250	16.5	34		2.35	7	410
7A3	Pentode Output	21	O	4	2	250	250	6	32		10	8.5	150
7A7	Pentode H.F.	22	O	6.3	0.3	250	100	3	8.6		2		375
7A8	Octode F.C.	23	O	6.3	0.15	250	100	3	3		0.6†	7.6	500
7B5E	Pentode Power	24	O	6.3	0.4	250	250	18	32		2.2†	6	2,000
7B6	Double Diode Triode	25	O	6.3	0.3	250		2	1	100	1.1		

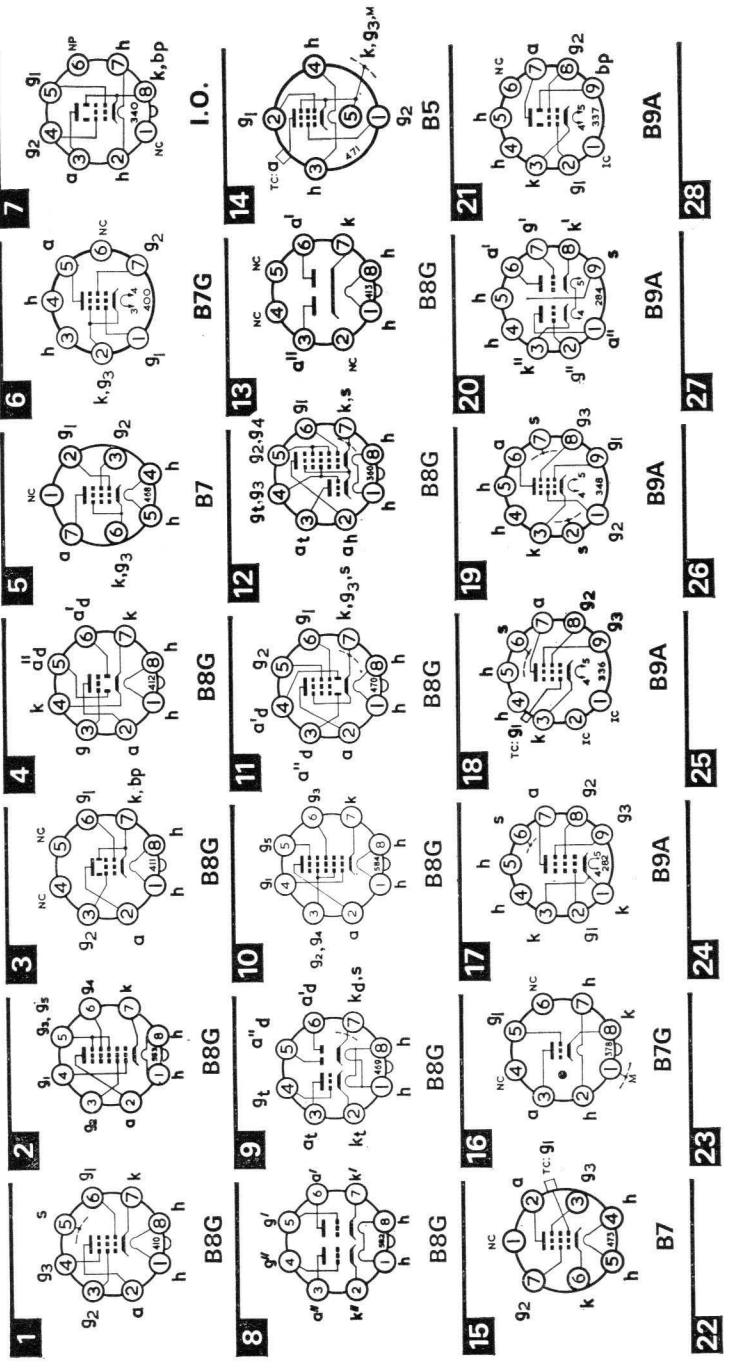
†Alternative column heading.



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Type Number	Application	Base Class	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	-V <sub>g1</sub>	I <sub>a</sub>	μ	g <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	per anode	±μg <sub>1</sub> -g <sub>2</sub>	mA/IV	kΩ	Ω	W
7B7	Pentode Vari-mu H.F.	1	Mo	6:3	0:15	250	100	3	8.5		1.75		330	
7B8	Heptode F.C.	2	O	6:3	0:3	250	100	3	3.5		0.55†			
7C5	Beam Tetrode Output	3	O	6:3	0:45	250	250	12.5	45		4.1	5	240	4.5
7C6	Double Diode Triode	4	O	6:3	0:15	250		1	1.3	100	1			
7D3	Pentode Output	5	O	40	0:2	160	120	18	33		2.4	5	440	2.2
7D5	Pentode Output	5	O	13	0:315	250	250	16.5	34		2.5	7	410	3.2
7D6	Pentode Output	5	O	40	0:2	250	250	6	32		10	8.5	150	3.75
7D7	Pentode Power	5	O	6:3	0:4	250	250	18	32		2.3	7.6	500	3.4
7D8	Pentode Output	5	O	13	0:65	250	250	6	32		10	8.5	150	3.75
7D9	Pentode Power	6	O	6:3	0:2	250	250	13.5	16		2.6	16	680	1.4
7D11	Pentode Output	7	O	6:3	1:8	250	250	14	11		1.1	1.5		12.5
7F7	Double Triode	8	O	6:3	0:3	250	250	2	2.3	70	1.6			
7H7	Pentode Vari-mu H.F.	1	Mo	6:3	0:3	250	150	2.5	9.5		4.2		200	
7K7	Double Diode Triode	9	O	6:3	0:3	250		2	2.3	70	1.6			
7N7	Double Triode	8	O	6:3	0:6	90		0	10	20	3			
7Q7	Pentagrid	10	O	6:3	0:3	250	100	2	3.5		0.45†			
7R7	Double Diode Pentode	11	O	6:3	0:3	250	100	1	6.2		3.2		150	
7S7	Triode Heptode F.C.	12	Mo	6:3	0:3	{(h)250 (t)150}	100	2	1.8		0.53†		200	
7Y4	F.W. Rectifier	13	Mo	6:3	0:5	325†			70†					
7Z4	F.W. Rectifier	13	O	6:3	0:9	325†			100†					
8A1	Pentode H.F.	14	O	4	1	200	80	1.5	3.5		4		200	
8D3/6AM6	Pentode H.F.	15	O	13	0:2	250	100	3	2		1.25			
8D3	Pentode H.F.	16	C	6:3	0:3	250	250	2	10	70†	7.5		160	
8D6	Pentode V.H.F.	17	O	6:3	0:3	250	250		9.5		8.5		180	
8D7	Pentode A.F.	18	O	6:3	0:15	250	100	3	2.1		1.25			
8D8	Pentode A.F.	19	M	6:3	0:15	250	140	2	3		1.9			
9A1	Pentode H.F.	14	O	4	1	200	100	0	5		4.25		220	
9AQ8	Double Triode	20	O	9	0:3	200	250	2.1	10	48	5.8		5	250
9BW6	Tetrode Output	21	Mo	9	0:3	250	125	12.5	47		4.1		5	200
9D2	Pentode Vari-mu H.F.	15	O	13	0:2	250	125	3	10.5		1.65			

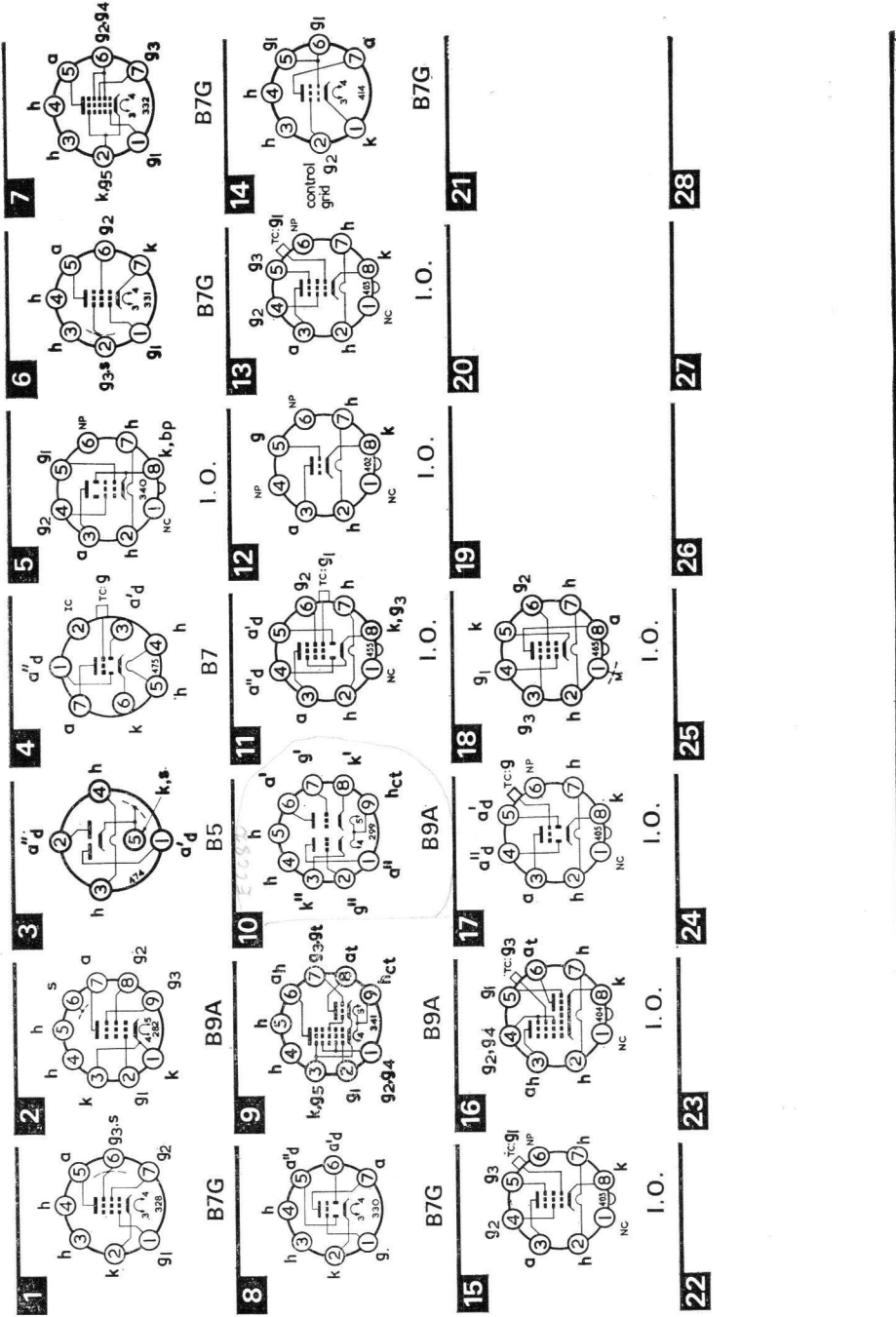
†Alternative column heading.



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Type Number	Application	Base	Sales Class	V <sub>ih</sub>	I <sub>ih</sub>	V <sub>a</sub> ‡V <sub>rms</sub> (max) per anode	V <sub>g2</sub> ‡P.I.V. (max)	-V <sub>g1</sub>	I <sub>a</sub> ‡I <sub>out</sub> (max) per anode	μ ‡μ <sub>g1-g2</sub>	g <sub>m</sub> ‡g <sub>c</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	mA		mA/V	kΩ	Ω	W
9D6	Pentode Vari-mu H.F.	1	O	6.3	0.2	250	200	2.5	8	30†	2.5		250	
9D7	Pentode Vari-mu	2	M	6.3	0.3	250	100		10	35†	8.4		100	
10D1	Double Diode	3	O	13	0.2	125†			9					
11A2	Double Diode Triode	4	O	4	1	200		2	3	50	2.8		600	
11D3	Double Diode Triode	4	O	13	0.2	250		2	0.9	100	1.1			
11D5	Double Diode Triode	4	O	13	0.15	250		3	3.8	40	1.5			
12A6	Beam Tetraode Output	5	O	12.6	0.15	250	250	12.5	30		3	7.5	330	3.4
12AC6	Pentode Vari-mu	6	Mo	12.6	0.15	12.6	12.6	0	0.55		0.72			
12AD6	Heptode F.C.	7	Mo	12.6	0.15	12.6	12.6	0	0.45		0.26†			
12AE6	Double Diode Triode	8	Mo	12.6	0.15	12.6		0	0.75	15	1			
12AH8	Triode Heptode F.C.	9	O	6.3*	0.3*	{(h)250 (t)100}	100	0	2.6	17	0.55†		220	
12AT6	Double Diode Triode	8	M	12.6	0.15	250		3	5.7	3.5	1.2	27		
12AT7	Double Triode V.H.F.	10	C	6.3*	0.3*	250		2	10	55	5.5		68	
12AU6	Pentode H.F.	6	M	12.6	0.15	250	150	8.5	10.8	41†	5.2			
12AU7	Double Triode A.F.	10	C	6.3*	0.3*	250		1	10.5	17	2.2			
12AV6	Double Diode Triode	8	M	12.6	0.15	250		2	1.2	100	1.6			
12AX7	Double Triode A.F.	10	C	6.3*	0.3*	250	100	2	1.2	100	1.6			
12BA6	Pentode Vari-mu V.H.F.	6	M	12.6	0.15	250		1	11		4.4			
12BE6	Heptode F.C.	7	M	12.6	0.15	250	100	1.5	3	17	0.475†			
12BH7	Double Triode	10	C	6.3*	0.4*	250		10.5	11.5	3.1	3.1			
12BL6	Pentode Vari-mu	6	Mo	12.6	0.15	12.6	12.6	0	1.35		1.35			
12C8GT	Double Diode Pentode	11	O	12.6	0.15	250	125	3	9		1.12		250	
12J5GT	Triode	12	O	12.6	0.15	250		8	9	20	2.6			
12J7GT	Pentode H.F.	13	O	12.6	0.15	250	100	3	2		1.2			
12K5	Tetraode	14	Mo	12.6	0.45	12.6	12.6†	2	8	5.6	7	0.8		
12K7GT	Pentode Vari-mu H.F.	15	Mo	12.6	0.15	250	125	3	10.5		1.65		200	
12K8GT	Triode Hexode F.C.	16	Mo	12.6	0.15	{(h)250 (t)100}	100	3	3	0.36†	2.5		300	
12Q7GT	Double Diode Triode	17	Mo	12.6	0.15	250	100	3	1	70	1.2			
12SJ7	Pentode H.F.	18	O	12.6	0.15	250	100	3	3		1.6			
12SK7	Pentode H.F.	18	O	12.6	0.15	250	100	3	9.2		2			

†Space charge grid voltage. ‡Alternative column heading.

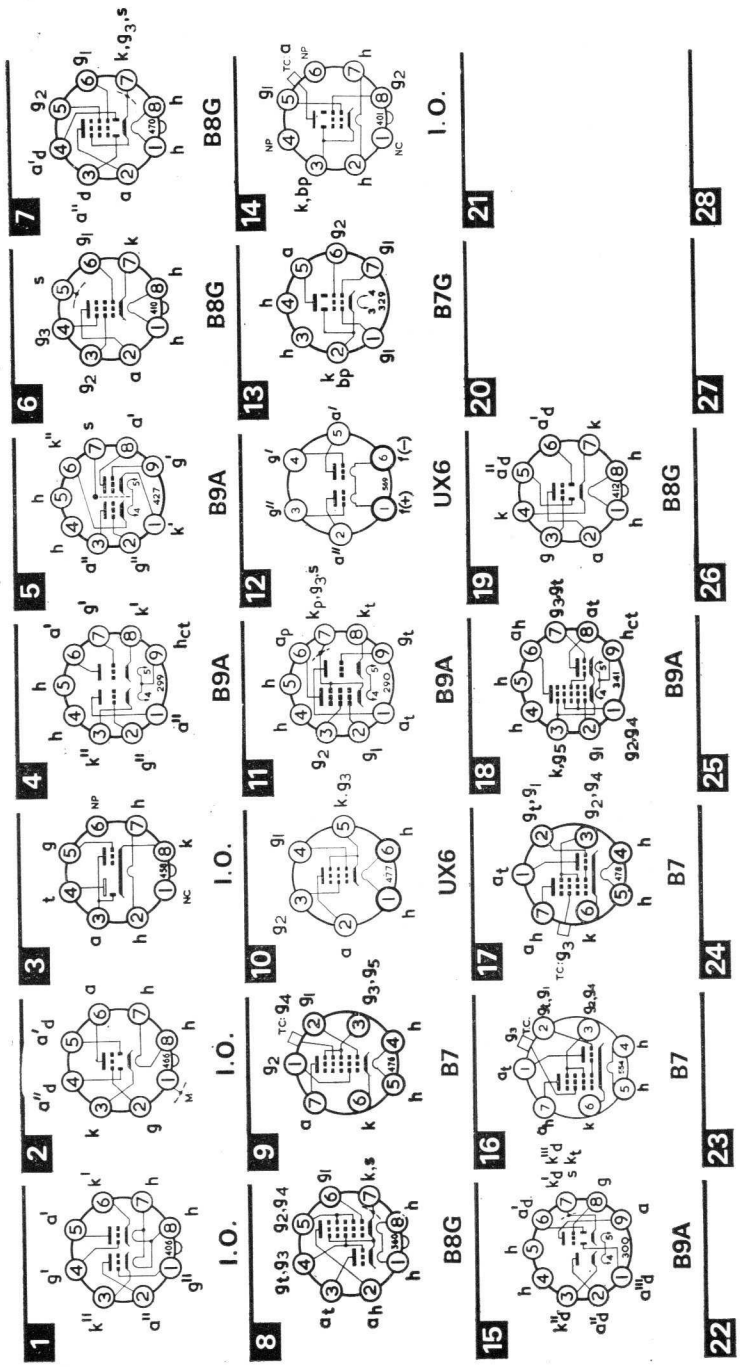


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Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	-V <sub>g1</sub>	I <sub>a</sub>	μ	g <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	mA	†μg <sub>1</sub> -g <sub>2</sub>	mA/V	kΩ	Ω	W
						†V <sub>rms</sub> (max) per anode	†P.I.V. (max)		‡I <sub>out</sub> (max) per anode					
<b>12SL7</b>	Double Triode	1	O	12.6	0.15	250		2	2.3	70	1.6			
<b>12SN7</b>	Double Triode	1	Mo	12.6	0.3	250		8	9	20	2.6			
<b>12SQ7</b>	Double Diode Triode	2	O	12.6	0.15	250		2	0.9	100	1.1			
<b>12SR7</b>	Double Diode Triode	2	O	12.6	0.15	250		9	9.5	16	1.9	10		0.3
<b>12U5G</b>	Tuning Indicator	3	O	12.6	0.15	250		0/22	0.24	9	2.6			
<b>13D1</b>	Double Triode	1	O	25	0.15	250		8		20				1100
<b>13D2</b>	Double Triode	1	O	6.3	0.6	250		8	9	20	2.6			
<b>13D3</b>	Double Triode	4	C	6.3*	0.6*	250		4.6	6	32	2.3			
<b>13D7</b>	Double Triode	5	O	6.3	0.3	250		1.5	1.3	150	2.4			
<b>13D8</b>	Double Triode A.F.	4	C	6.3*	0.3*	250		8.5	10.5	17	2.2			
<b>13D9</b>	Double Triode	4	M	6.3*	0.3*	200		0	10	50	5.7			200
<b>14B6</b>	Double Diode Triode	19	O	6.3	0.3	250		2	0.9	100	1.1			
<b>14H7</b>	Pentode Vari-mu H.F.	6	O	12.6	0.15	250	150	2.5	9.5	4.2				200
<b>14R7</b>	Double Diode Pentode	7	O	12.6	0.15	250	100	1	6.2	3.2				150
<b>14S7</b>	Triode Heptode F.C.	8	Mo	12.6	0.15	{ (h)250 (t)150 }	100	2	1.8	0.53†				200
<b>15A2</b>	Heptode F.C.	9	O	4	0.65	250	100	3	3.5	0.55†				300
<b>15D1</b>	Heptode F.C.	9	O	13	0.2	250	100	3	3.5	0.55†				300
<b>15D2</b>	Heptode F.C.	8	O	13	0.15	250	100	3	3.5	0.55†				300
<b>18</b>	Pentode Power	10	O	14	0.3	250	250	16.5	34	2.5		7	410	3.2
<b>18D3</b>	Triode Pentode	11	O	6.3	0.45	150	150	2	7	11				
<b>19</b>	Double Triode	12	O	2	0.26	135		1.5	13.5	38	7.2	10§		1.9
<b>19AG5</b>	Tetrode Output	13	Mo	19	0.15	250	250	12.5	45	4.1		5	250	4.5
<b>19BG6G</b>	Tetrode Line Output	14	Mo	19	0.3	300	250	18	60	6				
<b>19T8</b>	Triple Diode Triode	15	O	19	0.15	250		3	1	70	1.2			
<b>20A1</b>	Triode Hexode	16	O	4	1.2	{ (h)250 (t)100 }	80	1.5		0.65†				
<b>20D2</b>	Triode Hexode F.C.	17	O	13	0.15	{ (h)250 (t)100 }	100	3	2.5	0.36†				300
<b>20D3</b>	Triode Heptode F.C.	18	O	6.3*	0.3*	{ (h)250 (t)100 }	100	3	2.6	0.55†				

†Alternative column heading. §Anode to Anode Load.

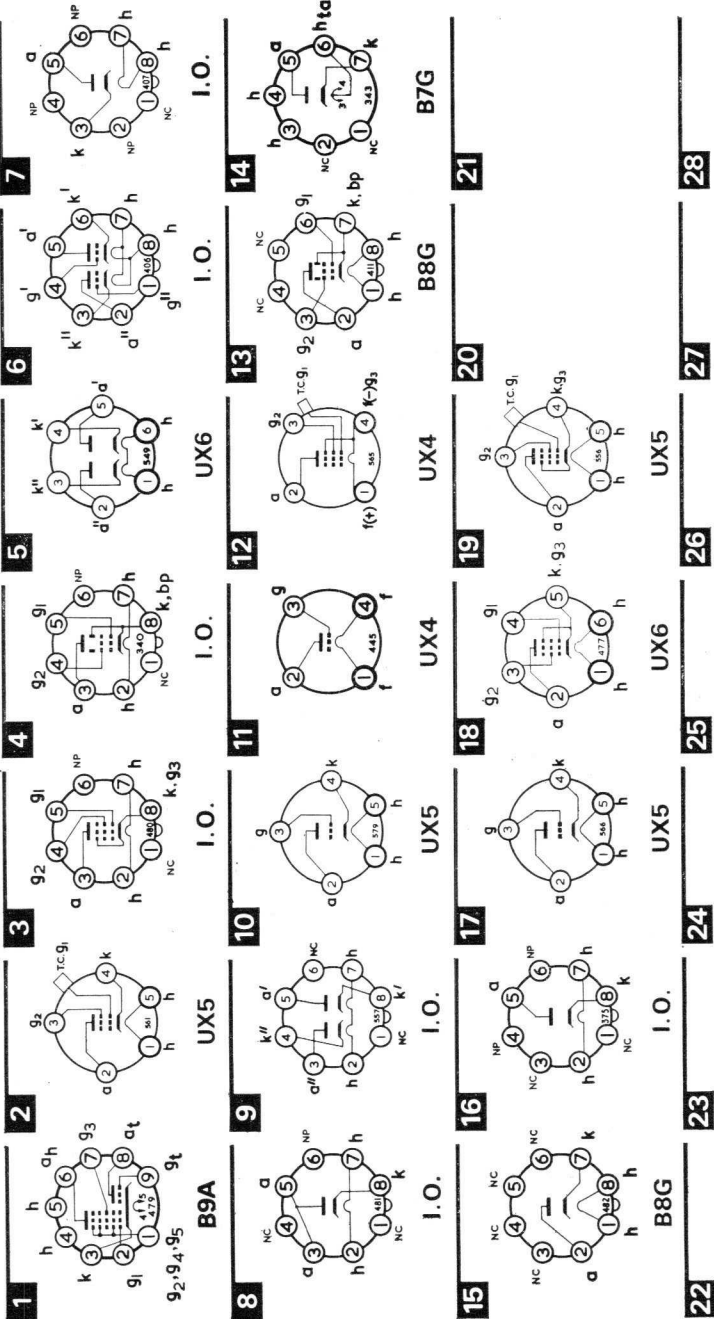




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Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	-V <sub>g1</sub>	I <sub>a</sub>	μ	g <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	mA	†μg1-g2	mA/V	kΩ	Ω	W
20D4	Triode Heptode F.C.	1	Mo	6.3	0.3	{(h)250 (t)100}	100	2	7	16	0.85†			
24A 24E	Tetrode H.F.	2	O	2.5	1.75	250	90	3	15		3.5			
25A6G	Pentode Power	3	Mo	25	0.3	160	120	18	33		1.05	5	440	2.2
25L6GT	Beam Tetrode Output	4	O	25	0.3	110	110	7.5	49		9	1.5	150	2.1
25RE	F.W. Rectifier	5	O	25	0.3	250†	250†		85†					
25SN7GT	Double Triode	6	O	25	0.15	250		8	9	20	2.6			
25U4GT	H.W. Rectifier	7	O	25	0.3		3,850†							
25Y5	F.W. Rectifier	5	O	25	0.3	250†			138†					
25Z4G	H.W. Rectifier	8	O	25	0.3	250†			85†					
									100†					
25Z5	F.W. Rectifier	5	O	25	0.3	235†			150†					
25Z6G	F.W. Rectifier	9	O	25	0.3	235†			150†					
27	Triode	10	O	2.5	1.75	250		21	5.2	9	1	4,000		
30	Triode	11	O	2	0.06	135		9	3	9.3	0.9			
32E	Pentode H.F.	12	O	2	0.06	135		3	1.7		0.6			
34E	Pentode Vari-mu H.F.	12	O	2	0.06	135		3	2.8		0.6			
35A5	Tetrode Output	13	O	35	0.15	200	110	8	41		5.9	4.5	185	3.3
35L6GT	Beam Tetrode Output	4	Mo	35	0.15	200	110	8	41		5.9	4.5	185	3.3
35RE	F.W. Rectifier	5	O	35	0.3	250†			100†					
35W4	H.W. Rectifier	14	M	35	0.15	117†			100†					
35Z3	H.W. Rectifier	15	O	35	0.15	250†			100†					
35Z4GT	H.W. Rectifier	16	Mo	35	0.15	250†			100†					
36	Tetrode H.F.	2	O	6.3	0.3	250	90	3	3.2		1.1			
37	Triode	17	O	6.3	0.3	250		18	7.5	9.2	1.1			
39/44	Pentode Vari-mu H.F.	19	O	6.3	0.3	250	90	3	5.8		1.1			
41 41E	Pentode Power	18	O	6.3	0.4	250	250	18	32		2.3	7.6	500	3.4
42 42E	Pentode Output	18	O	6.3	0.7	250	250	16.5	34		2.5	7	410	3.2
43	Pentode Output	18	O	25	0.3	160	120	18	33		2.4	5	440	2.2

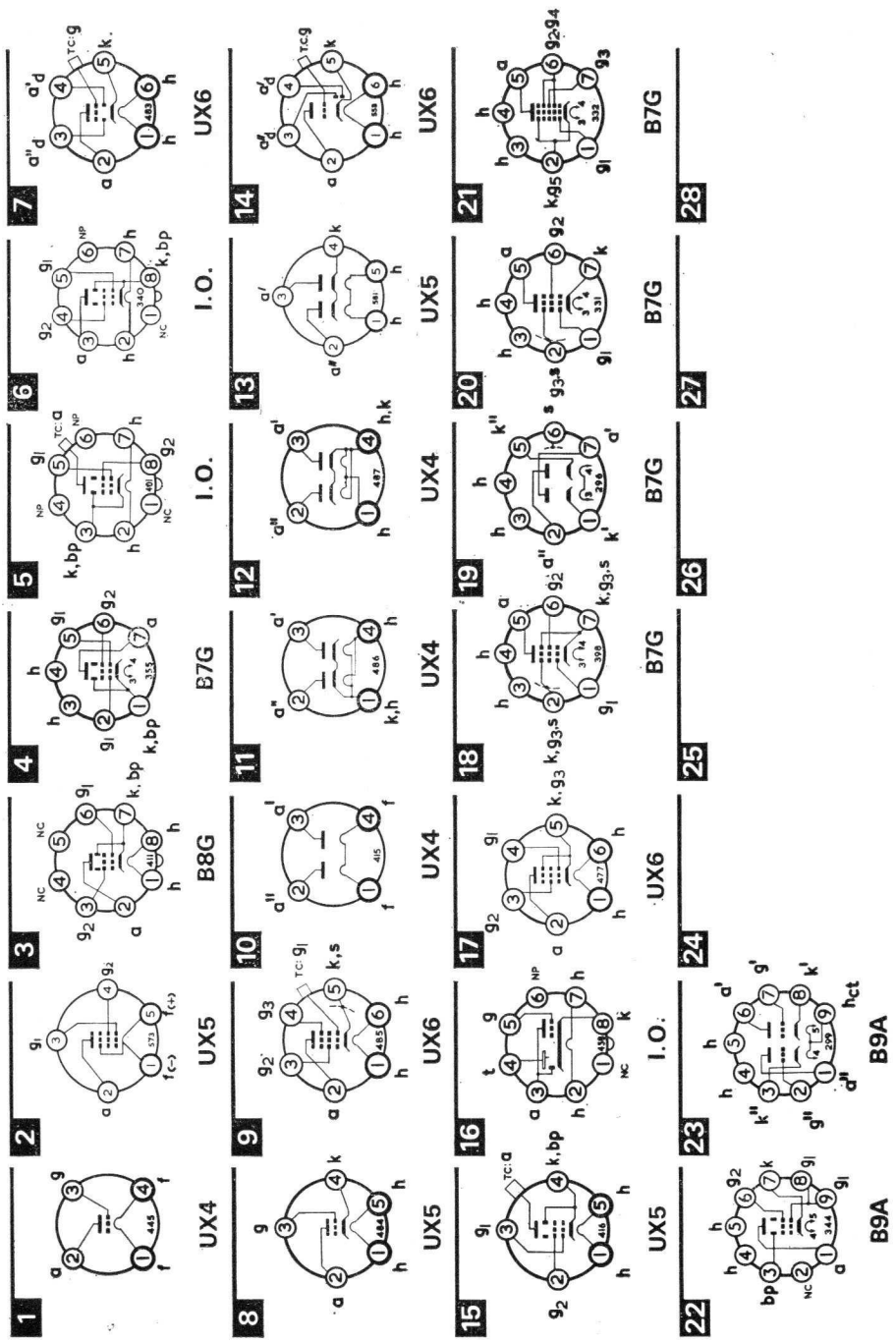
†Alternative column heading.



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Type Number	Application	Base	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	-V <sub>g1</sub>	I <sub>a</sub>	μ	g <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	mA	†μg <sub>1</sub> -g <sub>2</sub>	mA/V	kΩ	Ω	W
45	Triode	1	O	2.5	1.5	250		50	36	3.5	2.2	3.9	1500	1.6
47 47E	Pentode	2	O	2.5	1.75	250		16.5	41		2.5	7	450	2.7
50A5	Tetrode Output	3	O	50	0.15	200		8	50		8.25	3	160	4.3
50C5	Beam Tetrode Output	4	M	50	0.15	110		7.5	49		7.5	2.5	140	1.9
50CD6G	Tetrode Line Output	5	M	50	0.3	200		30	64	3.5†	6.7	3	150	4.3
50L6GT	Beam Tetrode Output	6	O	50	0.15	200		8	50		9.5	3	150	4.3
75	Double Diode Triode	7	O	6.3	0.3	250		2	0.9	100	1.1			
76	Triode	8	O	6.3	0.3	250		13.5	5	14	1.45			
77 77E	Pentode H.F.	9	O	6.3	0.3	250	100	3	2.3		1.25			
78 78E	Pentode Vari-mu H.F.	9	O	6.3	0.3	250	100	3	7		1.45		330	
80	F.W. Rectifier	10	O	5	2	350†			125†					
80S	F.W. Rectifier	11	O	5	2	350†			125†					
83	F.W. Rectifier (M.V.)	10	O	5	3	450†			225†					
83V	F.W. Rectifier	12	Mo	5	2	375†			175†					
84	F.W. Rectifier	13	O	6.3	0.5	325†			60†					
85	Double Diode Triode	14	O	6.3	0.3	250		20	8	8.3	1.1	3	140	6.4
807	Beam Tetrode Output	15	M	6.3	0.9	300		12.5	83					
1629	Tuning Indicator	16	O	12.6	0.15	250	250	0/8	0.24					
2151	Pentode Power	17	O	14	0.3	250	250	31	47		2.4	5	500	5
5454	Pentode V.H.F.	18	MoSQ	6.3	0.175	120	120	2	7.5		5	180		
5726	Double Diode	19	C	6.3	0.3	117†			9†					
5749	Pentode Vari-mu V.H.F.	20	CSQ	6.3	0.3	250	100	0	11		4.4	60		
5750	Heptode H.F. F.C.	21	CSQ	6.3	0.3	250	100	0	3	0.475	7.25			
5763	Beam Tetrode V.F.H.	22	C	6	0.75	250	250	7.25	45	16†	7			
5963	Double Triode	23	MSQ	6.3*	0.3*	67.5		0	8.5	21	3.2		220	
5965	Double Triode	23	MSQ	6.3*	0.45*	150		0	8.2	47	6.5			
6057	Double Triode	23	CSQ	6.3*	0.3*	250		2	1.25	95	1.6			

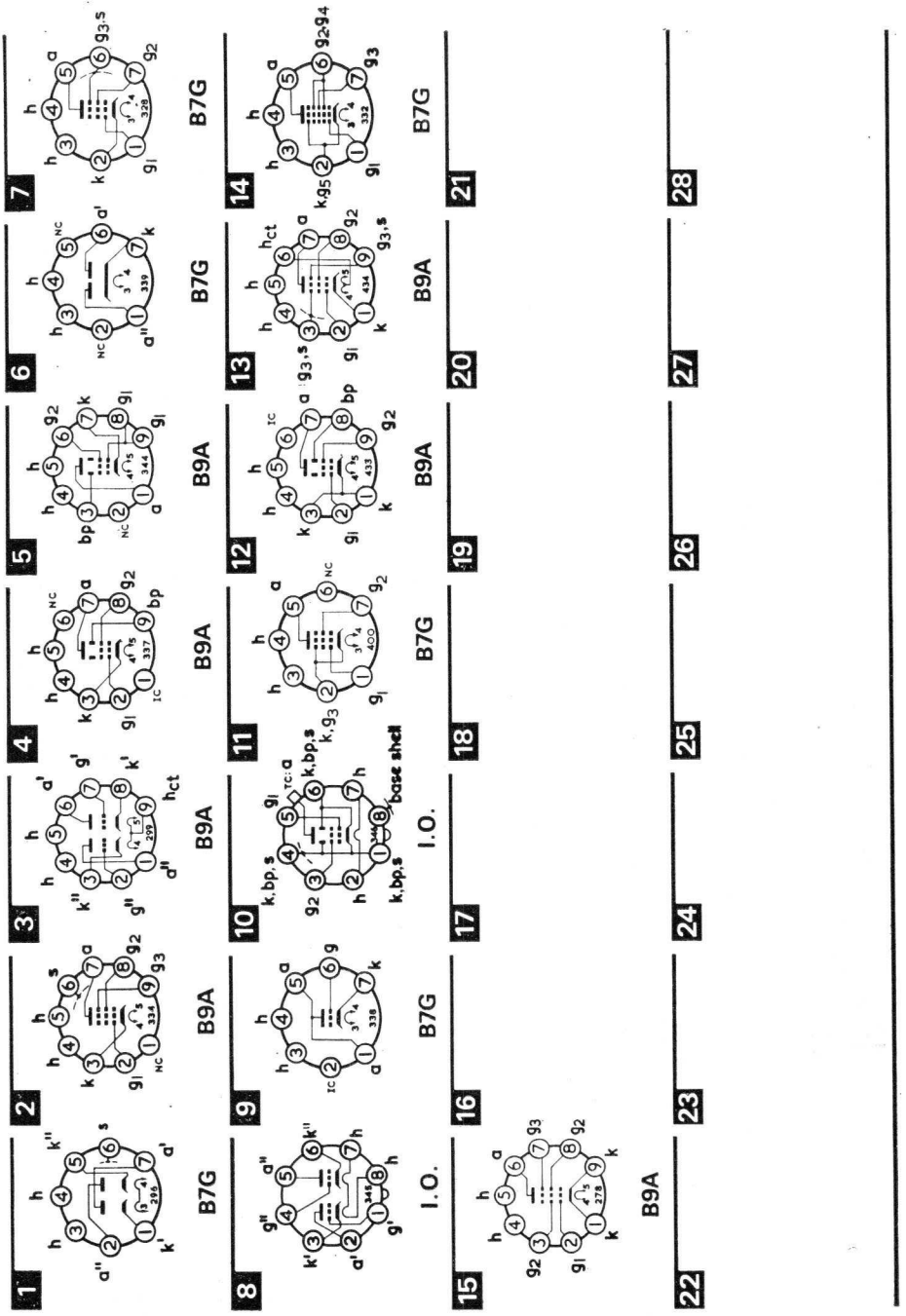
†Alternative column heading.



Sales Classification: C=Current type, M=Maintenance type, Mo=Obsolent type, O=Obsolete type, SQ=Special Quality.

Type Number	Application	Base Class	Sales Class	V <sub>h</sub>	I <sub>h</sub>	V <sub>a</sub>	V <sub>g2</sub>	-V <sub>g1</sub>	I <sub>a</sub>	μ	g <sub>m</sub>	R <sub>L</sub>	R <sub>k</sub>	P <sub>out</sub>
				V	A	V	V	V	Per anode mA	±μg <sub>1</sub> -g <sub>2</sub>	mA/V	kΩ	Ω	W
6058	Double Diode	1 CSQ		6-3	0-3	150†			9†					
6059	Pentode A.F.	2 CSQ		6-3	0-15	250		3	2-1	1-275				
6060	Double Triode V.H.F.	3 CSQ		6-3*	0-3*	250		0	10	60	5-5		200	
6061	Beam Tetrode V.H.F.	4 CSQ		6-3	0-45	250	250	12-5	45	16†	4-1	5		4-5
6062	Beam Tetrode V.H.F.	5 CSQ		6	0-75	250	250	7-5	45		7			
6063	F.W. Rectifier	6 MSQ		6-3	0-6	325†			70†					
6064	Pentode V.H.F.	7 CSQ		6-3	0-3	250	250	0	9-85	75†	7-62		160	
6065	Pentode Vari-mu H.F.	7 MSQ		6-3	0-2	200	200	2-5	8-25	30†	2-45			
6067	Double Triode A.F.	3 CSQ		6-3*	0-3*	250	250	8-5	10-5	17	2-2			
6080	Double Triode	8 M		6-3	2-5	100			100	2	6-5		300	
6100	Triode V.H.F. Power	9 MSQ		6-3	0-15	100		0	11-8	19-5	3-1			
6132	Pentode Video	4 CSQ		6-3	0-75	250	250	4-5	40	26†	11			
6146	Beam Tetrode V.H.F.	10 C		6-3	1-25	200	200	29-5	100	4-5†	7			
6158	Double Triode	3 CSQ		6-3*	0-6*	250	250	4-6	6	32	2-35			
6516	Pentode A.F. Power	11 MSQ		6-3	0-2	250	250	0	15	12†	2-55	16	740	1-4
6688	Tetrode	12 MSQ		6-3	0-2	190	160	9	13	50†	16-5		630	
6870	Pentode Video	13 MSQ		6-3*	0-5*	180	190	0	25	35†	9		56	
7032	Heptode Gating	14 MSQ		6-3	0-3	150	75	0(g <sub>1</sub> ) 0(g <sub>3</sub> )		(g <sub>1-a</sub> )1-4 (g <sub>3-a</sub> )0-65				
7489	Double Triode	3 MSQ		6-3*	0-3*	250		8-5	10-5	17	2-2		200	
7492	Double Triode	3 OSQ		6-3*	0-3*	250	250		10	60	5-5		160	
7498	Pentode H.F.	7 MSQ		6-3	0-3	250	250		9-85	75†	7-6			
7558	Pentode V.H.F. Power	15 M		6-3	0-8	250	250	18	40	8-7†	5-3			

†Alternative column heading.



# BRIMAR TELETUBES

## ABRIDGED DATA

FOR KEY TO SYMBOLS AND ABBREVIATIONS PLEASE SEE PAGE 5

C=Current. M=Maintenance. Mo=Obsolescent. O=Obsolete.

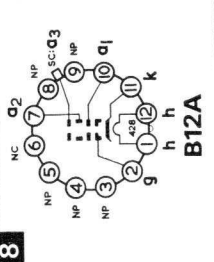
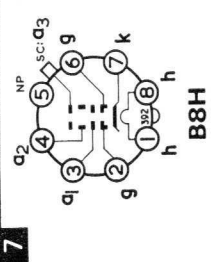
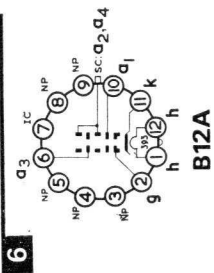
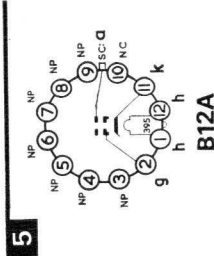
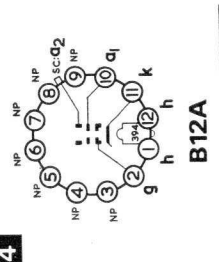
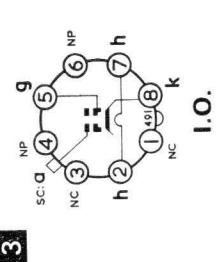
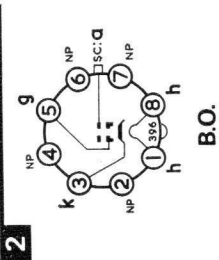
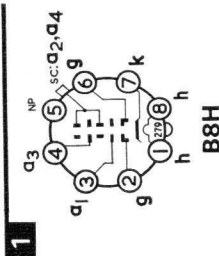
Type Number	Base	Sales Class	Screen Size (in)	Features	Light Transmission (%)	Overall Tube Length (mm)	Deflection Angle (c)	Heater V <sub>h</sub> (V)	Heater I <sub>h</sub> (A)	Focust	V <sub>a</sub> (Final Anode) (kV)	-V <sub>g</sub> (for cut-off) (V)
A47-13W	1	C	19	Twin Panel Ringuard mk II	65	317	110	6-3	0-3	E	18	40/77
A47-25W	1	C	19		50	309	110	6-3	0-3	E	18	40/77
AW47-90	1	M	19		70	328	110	6-3	0-3	E	18	40/77
AW47-91	1	C	19	75	75	309	110	6-3	0-3	E	18	40/77
C9A	2	O	9			374	57	2	1-4	M	6	40/30
C9B	3	O	9			422	57	2	2-5	M	7	40/100
C12A	2	O	12			465	57	2	1-4	M	6	35
C12B	3	O	12			505	63	2	2-5	M	10	60/140
C12D	3	O	12			505	63	2	2-5	M	6	40/100
C12FM	4	Mo	12	Ion Trap		465	63	6-3	0-6	M	7	40
C14BM	5	Mo	14			438	70	6-3	0-6	M	12	70
C14FM	4	Mo	14			436	70	12-6	0-3	M	12	33/77
C14LM*	6	Mo	14	Ion Trap	70	411	70	6-3	0-3	E	16	33/77
C14PM	6	Mo	14			436	70	6-3	0-3	E	16	33/77
C17AA	1	M	17			330	110	6-3	0-3	E	15	30/72
C17AF	7	M	17	Ion Trap		283	110	4	0-3	E	16	38/78
C17BM	5	Mo	17			514	70	6-3	0-6	M	15	40/70
C17FM	4	M	17			497	70	12-6	0-3	M	15	33/77
C17JM	6	O	17	Ion Trap		497	70	6-3	0-6	E	15	33/77
C17LM	6	M	17			497	70	6-3	0-3	E	16	33/77
C17PM	6	M	17			497	70	6-3	0-3	E	16	33/77



C17SM <sup>®</sup>	6	M	17	70	403	90	6.3	0.3	E	16	33/77
C19AH	4	M	19	70	284	114	4	0.3	E	16	38/78
C19AK	4	M	19	70	328	110	6.3	0.3	E	16	38/94
C21AA	1	M	21	70	362	110	6.3	0.3	E	15	30/77
C21AF	7	M	21	70	362	110	4	0.3	E	16	38/78
C21HM	4	Mo	21	70	594	70	6.3	0.6	M	16	33/77
C21NM	8	Mo	21	67	492	70	6.3	0.3	M	16	53/105
C21SM	6	M	21	70	517	90	6.3	0.3	E	18	33/77
C21TM	4	O	21	70	517	90	12.6	0.3	M	18	30/72
C23AG	7	M	23	70	349	110	4	0.3	E	16	38/78
C23AK	1	M	23	70	383	110	6.3	0.3	E	16	38/94
C23AKT	1	Mo	23	40	394	110	6.3	0.3	E	16	38/94
C24KM	8	M	24	70	535	90	6.3	0.3	M	16	40/80

<sup>®</sup>Monitor Tube Versions, suffixed /1, now obsolete. †Focus: E=Electrostatic. M=Magnetic.

Type numbers with the suffix /S are fitted with Sparkguard base.



# BRIMAR EQUIVALENTS

This list includes

- CURRENT EQUIPMENT TYPES**
- MAINTENANCE TYPES**
- OBSOLESCEENT TYPES**
- OBSOLETE TYPES**
- EXPORT ONLY TYPES**

**This Equivalents List cannot therefore be taken as an indication of availability. Valves shown in italics have solus Brimar type numbers. Cathode Ray Tubes are grouped together at the end of this list.**

The equivalents given in this list have been selected with every care, but Thorn-AEI Radio Valves & Tubes Limited neither assume nor accept any responsibility or liability for the accuracy of the information given.

Before making a replacement it is advisable to study the published data on the valve concerned to ensure continued operation within the ratings.

The equivalents are not intended to guarantee any degree of equivalence as regards secondary parameters.

## VALVE EQUIVALENTS

Index Type	CV Type	BRIMAR			Index Type	CV Type	BRIMAR		Others
		'American' Types	'European' Types	Others			'American' Types	'European' Types	
<b>0A2</b>	CV1832	0A2	150C2	STV150-30	<b>1M1</b>	—	—	DM71	
<b>0A3</b>	CV3798	0A3	—	<i>VR75/30</i>	<b>1M3</b>	—	1M3	DM70	
<b>0B2</b>	CV1833	0B2	108C1	STV108-30	<b>1N3</b>	—	1N3	DM71	
<b>0C3</b>	CV686	0C3	—	<i>VR105/30</i>	<b>1N5GT</b>	CV1823	1N5GT	DF33	
<b>0D3</b>	CV216	0D3	150C3	<i>VR150/30</i>	<b>1P1</b>	—	3C4	N25	
<b>0Z4</b>	CV692	0Z4	—	—	<b>1P10</b>	CV820	354	DL92	
<b>1A3</b>	CV753	1A3	DA90	1D13	<b>1P11</b>	—	3V4	DL94	
<b>1A5G</b>	CV755	1A5G	—	—	<b>1R5</b>	CV782	1R5	DK91	
<b>1A7G</b>	CV1800	1A7G	—	DK32	<b>1S2</b>	—	1S2	DY86	
<b>1AB6</b>	—	1AB6	DK96	1C3	<b>1S2A</b>	—	1S2A	DY87	
<b>1AC6</b>	—	1AC6	DK92	1C2	<b>1S4</b>	CV783	1S4	DL91	
<b>1AH5</b>	—	1AH5	DAF96	1FD1	<b>1S5</b>	CV784	1S5	DAF91	
<b>1AJ4</b>	—	1AJ4	DF96	1F1	<b>1T2</b>	—	1T2	R16	
<b>1C1</b>	CV782	1R5	DK91	X17	<b>1T4</b>	CV785	1T4	DF91	
<b>1C2</b>	—	1AC6	DK92	X20	<b>1U5</b>	CV3912	1U5	—	
<b>1C3</b>	—	1AB6	DK96	X25	<b>1X2B</b>	—	1X2B	R19	
<b>1C5GT</b>	CV1805	1C5GT	—	DL35	<b>2A3</b>	CV1831	2A3	—	
<b>1D5</b>	CV764	<i>1D5</i>	—	U4020	<b>2B35</b>	—	—	EA50	
<b>1D6</b>	—	<i>1D6</i>	—	—	<b>2D21</b>	CV797	2D21	EN91	
<b>1D13</b>	CV753	—	—	1A3	<b>2T/270K</b>	CV261	—	R10	
<b>1F1</b>	—	1AJ4	DF96	W25	<b>2J2</b>	—	2J2	R20	
<b>1F2</b>	CV1758	1L4	DF92	1F2	<b>2L2</b>	—	—	—	
<b>1F3</b>	CV785	1T4	DF91	W17	<b>3A5</b>	CV808	3A5	DCC90	
<b>1FD1</b>	—	1AH5	DAF96	ZD25	<b>3C4</b>	—	3C4	DL96	
<b>1FD9</b>	CV784	1S5	DAF91	ZD17	<b>3D6</b>	—	3D6	—	
<b>1H5GT</b>	CV1820	1H5GT	—	DAC32	<b>3Q4</b>	CV818	3Q4	DL95	
<b>1L4</b>	CV1758	1L4	DF92	1F2	<b>3Q5GT</b>	CV819	3Q5GT	DL33	
<b>1LA6E</b>	—	1LA6E	—	—	<b>3S4</b>	CV820	3S4	DL92	
<b>1LD5</b>	CV779	1LD5	—	—	<b>3V4</b>	CV1633	3V4	DL94	
<b>1LN5</b>	CV781	1LN5	—	—	<b>4CM4</b>	—	4CM4	PC86	

# BRIMAR VALVE EQUIVALENTS

Index Type	CV Type	BRIMAR			Index Type	CV Type	BRIMAR			Others
		'American' Types	'European' Types	Others			'American' Types	'European' Types	Others	
4D1	CV1109	4D1	—	HL1320	6C18	—	6GV7	ECF805	—	
4DL4	—	4DL4	PC88	—	6CA4	—	6CA4	EZ81	UU12	
4FY5	—	4FY5	PC97	—	6CA7	CV1741	6CA7	EL34	—	
4XP	CV1168	—	—	PP3-250	6CD6G	—	6CD6G	—	—	
5A/160H	—	8D3	EF91	6AM6	6CH6	CV2127	6CH6	EL821	7D10	
5A/160K	—	8D3	EF91	6AM6	6CJ5	—	—	EF41	6F16	
5AR4	—	5AR4	GZ34	—	6CL6	CV5041	6CL6	—	—	
5B250A	CV124	807	—	QV05-25	6CK5	—	—	EL41	N150	
5R4GY	CV717	5R4GY	—	—	6CM4	—	6CM4	EC86	—	
5U4G	CV575	5U4G	GZ31	U52	6CQ6	—	9D6	EF92	6F21	
5V4G	CV729	5V4G	—	52KU	6CS6	—	6CS6	EH90	—	
5Y3GT	CV1856	5Y3GT	—	U50	6CU7	—	6CU7	ECH42	6C10	
5Z3	CV1861	5Z3	—	—	6CV7	—	6CV7	EBC41	6LD3	
5Z4G	CV1863	5Z4G	GZ30	R52	6CW7	—	6CW7	ECC84	6L16	
6/30L2	—	6GA8	ECC804	B729	6D1	CV1092	—	EA50	2B35	
6A3	CV730	6A3	—	—	6D2	CV140	6A5	EB91	D77	
6A7/E	CV1870	6A7/E	—	—	6D6	CV1900	6D6	—	—	
6A8G	CV578	6A8G	—	X63	6DA5	—	6DA5	EM81	—	
6AB8	—	6AB8	ECL80	LN152	6DA6	CV5156	6DA6	EF89	—	
6AF4A	CV5074	6AF4A	—	—	6DC8	—	6DC8	EBF89	6FD12	
6AG6G	CV1438	6AG6G	EL33	KT61	6DJ8	—	GDJ8	ECC88	—	
6AJ8	CV2128	6AJ8	ECH81	6C12	6DL4	—	6DL4	EC88	—	
6AK5	CV850	6AK5	EF95	DP61	6ESGT	CV1905	6ESGT	—	—	
6AK6	CV1762	6AK6	—	—	6EH7	—	6EH7	EF183	6F29	
6AK8	—	6AK8	EABC80	6LD12	6EJ7	—	6EJ7	EF184	6F30	
6AL5	CV283	6AL5	EB91	6D2	6ES8	CV5331	6ES8	ECC189	—	
6AM4	CV5073	6AM4	—	—	6F6G	CV1911	6F6G	—	KT63	
6AM5	CV136	6AM5	EL91	6P17	6F12	CV138	8D3	EF91	6AM6	
6AM6	CV138	8D3	EF91	6F12	6F16	—	6D3	EF89	W150	
6AQ4	—	6AQ4	EC91	6L34	6F21	—	9D6	EF92	6CQ6	
6AQ5	CV1862	6AQ5	EL90	N727	6F22	—	6267	EF86	Z729	
6AQ8	—	6AQ8	ECC85	6L12	6F26	—	6B77	EF85	W719	
6AT6	CV452	6AT6	EBC90	DH77	6F28	—	—	EE80	—	
6AU6	CV2524	6AU6	—	—	6F29	—	6EH7	EF183	6F29	
6AV6	CV2526	6AV6	EBC91	—	6F30	—	6EJ7	EF184	6F30	
6B4G	CV851	6B4G	—	—	6FD12	—	6DC8	EBF89	6FD12	
6B7/E	CV1891	6B7/E	—	—	6FG6	—	6DC8	EM84	—	
6B8G	CV1893	6B8G	—	—	6FY5	—	6FY5	EC97	—	
6BA6	CV454	6BA6	EF93	W727	6G5G	—	6G5G	—	6M1	
6BD7A	—	6BD7A	EBC81	6LD13	6GA8	—	6GA8	ECC804	6/30L2	
6BE6	CV453	6BE6	EK90	X727	6GV7	—	6GV7	ECF805	6C18	
6BG6G	—	6BG6G	—	—	6GV8	—	6GV8	ECL85	—	
6BH6	CV3908	6BH6	—	—	6H5	—	6U5G	—	6M1	
6BJ6	CV3909	6BJ6	—	—	6HG8	—	6HG8	ECF86	—	
6BK4	—	6BK4	—	—	6HU6	—	6HU6	EM87	—	
6BK8	—	6267	EF86	—	6HU8	—	6HU8	ELL80	—	
6BL8	—	6BL8	ECF80	6C16	6J5G	CV1932	6J5G	—	L63	
6BM8	—	6BM8	ECL82	6PL12	6J6	CV858	6J6	—	ECC91	
6BQ5	—	6BQ5	EL84	6P15	6J7G	CV1935	6J7G	—	Z63	
6BQ7A	CV5365	6BQ7A	—	—	6JX8	—	6JX8	ECH84	—	
6BR5	—	—	—	EM80	6K6G	CV1938	6K6G	—	—	
6BR7	CV2135	6BR7	—	8D5	6K7G	CV1941	6K7G	—	KTW63	
6BR8	—	6BR8	—	—	6K8G	CV1944	6K8G	—	ECH35	
6BS7	CV5086	6BS7	—	8D7	6L6G	CV1947	6L6G	—	KT66	
6BT4	—	—	EZ40	UU9	6L7G	CV1950	6L7G	—	—	
6BW6	CV2136	6BW6	—	—	6L12	—	6AQ8	ECC85	B719	
6BW7	—	6BW7	—	8D6	6L13	—	12AX7	ECC83	B339	
6BX6	—	6BX6	EF80	Z719	6L16	—	6CW7	ECC84	6L16	
6BY7	—	6BY7	EF85	6F26	6LD3	CV3882	6CV7	EBC41	DH718	
6C4	CV133	6C4	EC90	L77	6LD12	—	6AK8	EABC80	DH719	
6C5G	CV581	6C5G	—	—	6LD13	—	6BD7A	EBC81	6LD13	
6C6	CV585	6C6	—	—	6M1	—	6U5G	—	6G5G	
6C10	CV3888	6CU7	ECH42	X150	6N7G	CV1956	6N7G	—	—	
6C12	—	6AJ8	ECH81	X719	6N8	—	6N8	EBF80	ZD152	
6C16	—	6BL8	ECF80	—	6P15	—	6BQ5	EL84	N709	

## BRIMAR VALVE EQUIVALENTS

Index Type	CV Type	BRIMAR		Others	Index Type	CV Type	BRIMAR		Others
		'American' Types	'European' Types				'American' Types	'European' Types	
6P17	—	6AM5	EL91	7D9	10FD12	—	19FL8	UBF89	WD119
6PL12	—	6BM8	ECL82	6PL12	10L14	—	—	UCC85	B109
6Q7G	CV587	6Q7G	—	DH63	10LD3	—	14L7	UBC41	DH142
6R7G	CV1962	6R7G	—	DL63	10LD12	—	—	UABC80	DH109
6S2	—	6S2	EY86	—	10LD13	—	—	UBC81	DH119
6S2A	—	6S2A	EY87	—	10P18	—	45B5	UL84	N119
6SC7	CV1969	6SC7	—	—	10PL12	—	50BM8	UCL82	LN119
6SG7	CV1978	6SG7	—	—	11D3	CV1419	11D3	—	HL/DD/ 1320
6SJ7	CV591	6SJ7	—	—	11D5	—	11D5	—	—
6SK7	CV1981	6SK7	—	—	12A6	CV525	12A6	—	—
6SL7GT	CV1985	6SL7GT	—	—	12AC5	—	—	UF41	W142
6SN7GT	CV1988	6SN7GT	—	ECC32	12AC6	—	12AC6	—	—
6SQ7	CV1990	6SQ7	—	—	12AD6	—	12AD6	—	—
6T8	—	6AK8	EABC80	DH719	12AE6	—	12AE6	—	—
6U4GT	CV5287	6U4GT	—	—	12AH8	CV5317	12AH8	—	20D3
6U5G/ 6G5G	CV2747	6U5G/ 6G5G	—	6M1	12AT6	—	12AT6	HBC90	—
6U7G	CV706	6U7G	—	—	12AT7	CV455	12AT7	ECC81	B309
6U8	CV5065	6U8	ECF82	—	12AU6	CV1961	12AU6	HF94	—
6V4	—	6V4	EZ80	—	12AU7	CV491	12AU7	ECC82	B329
6V6G	CV509	6V6G	—	—	12AV6	—	12AV6	HBC91	—
6X2	CV426	R/2	EY51	U151	12AX7	CV492	12AX7	ECC83	6L13
6X4	CV493	6X4	EZ90	U78	12BA6	CV1928	12BA6	HF93	—
6X5GT	CV574	6X5GT	EZ35	U147	12BE6	—	12BE6	HK90	—
7A2	CV1174	7A2	—	AC/Pen	12BH7	CV5042	12BH7	—	—
7A3	CV1181	7A3	—	AC2/Pen	12BL7	—	12BL7	—	—
7A7	CV877	7A7	—	—	12C8GT	CV3827	12C8GT	—	—
7AN7	CV5192	7AN7	PCC84	30L1	12AD7	—	12AX7	ECC83	6L13
7B6	CV882	7B6	—	DL82	12E13	CV5220	7D11	—	KT88
7B7	CV522	7B7	—	W149	12J5GT	CV535	12J5GT	—	—
7C5	CV885	7C5	—	N148	12J7GT	CV917	12J7GT	—	—
7C6	CV887	7C6	—	DH149	12K5	—	12K5	—	—
7D3	—	7D3	—	40PPA	12K7GT	CV918	12K7GT	—	W76
7D5	CV1425	7D5	—	N30	12K8GT	CV3927	12K8GT	—	X76M
7D6	CV1672	7D6	—	Pen383	12Q7GT	—	12Q7GT	—	DH76
7D8	CV889	7D8	—	Pen1340	12SJ7	CV697	12SJ7	—	—
7D9	CV136	6AM5	EL91	6P17	12SK7	CV543	12SK7	—	—
7D10	CV2127	6CH6	EL821	—	12SL7GT	CV924	12SL7GT	—	—
7D11	CV5220	7D11	—	KT88	12SN7GT	CV925	12SN7GT	—	B36
7ES8	—	7ES8	PCC189	—	12SQ7	CV546	12SQ7	—	—
7FC7	—	7FC7	PCC89	—	12SR7	CV700	12SR7	—	—
7GV7	—	7GV7	PCF805	30C18	12U5G	—	12U5G	—	—
7H7	CV895	7H7	—	W148	13D1	CV423	13D1	—	—
7K7	CV896	7K7	—	—	13D2	—	6SN7GT	—	ECC32
7R7	CV900	7R7	—	—	13D3	CV2212	13D3	—	—
7S7	—	7S7	—	X148	13D7	—	13D7	ECC807	—
7Y4	CV901	7Y4	—	U149	13DHA	CV1419	11D3	—	HL/DD/ 1320
7Z4	CV1790	7Z4	—	—	13SPA	CV929	8D2	—	SP13C
8A1	CV1282	8A1	—	AC/SG	13VPA	CV1106	9D2	—	VPI322
8D2	CV1108	8D2	—	SP13C	14B6	—	14B6	—	—
8D3	CV138	6AM6	EF91	6F12	14GW8	—	14GW8	PCL86	—
8D5	CV2135	6BR7	—	—	14H7	—	14H7	—	—
8D6	—	6BW7	—	—	14R7	CV3937	14R7	—	—
8D7	—	6BS7	—	—	14K7	—	14K7	UCH42	X142
8D8	—	8D8	—	—	14L7	—	14L7	UBC41	10LD3
8GJ7	—	8GJ7	PCF801	—	14S7	CV3936	14S7	—	—
8HG8	—	8HG8	PCF86	—	15A2	CV3576	15A2	—	X42
9A8	—	9A8	PCF80	30C1	15A6	—	15A6	PL83	—
9AQ8	—	9AQ8	PCC85	—	15CW5	—	15CW5	PL84	30P18
9BW6	—	9BW6	—	—	15D1	CV2956	15D1	—	—
9D2	CV1106	9D2	—	VP1322	15D2	CV1107	15D2	—	—
9D6	CV131	9D6	EF92	6CQ6	15DQ8	—	15DQ8	PCL84	—
9D7	CV5409	9D7	—	—	16A5	—	16A5	EL91	6P17
9U8	—	9U8	PCF82	—	16A5	—	16A5	PL82	30P16
10C14	—	19D8	UCH81	X119	16A8	—	16A8	PCL82	30PL12
10D1	CV1300	10D1	—	—	17Z3	—	17Z3	PY81	U153

# BRIMAR VALVE EQUIVALENTS

Index Type	CV Type	BRIMAR			Index Type	CV Type	BRIMAR		
		'American' Types	'European' Types	Others			'American' Types	'European' Types	Others
18D2	—	18D2	—	—	76	CV615	76	—	—
18D3	—	18D3	—	—	77 /E	CV616	77 /E	—	—
18GV8	—	18GV8	—	—	78 /E	CV2544	78 /E	—	—
19	—	19	—	—	80	CV617	80	—	—
19AQ5	—	19AQ5	—	—	80S	—	80S	—	—
19BG6G	—	19BG6G	—	—	83	CV618	83	—	—
19BR5	—	—	UM80	19BR5	83V	CV2547	83V	—	—
19D8	—	19D8	UCH81	10C14	121VP	—	—	UF41	12AC5
19FL8	—	19FL8	UBF89	10FD12	141DDT	—	14L7	UBC41	10LD3
19SU	—	19Y3	PY82	U192	141TH	—	14K7	UCH42	X142
19T8	—	19T8	—	—	15OC2	CV1832	OA2	—	STV150-30
19Y3	—	19Y3	PY82	U154	15OC3	CV216	VR1.50/30	150C3	OD3
20A3	CV797	2D21	EN91	—	311SU	—	31A3	UY41	U142
20D2	—	20D2	—	—	442BU	CV1796	—	R2	UU5
20D3	—	12AH8	—	20D3	451PT	—	45A5	UL41	N142
20D4	—	20D4	—	—	460BU	CV2644	—	R3	UU5
21A6	CV5077	21A6	PL81	N359	506BU	CV2645	—	R1	UU5
25A6G	—	25A6G	—	—	807	CV5307	807	—	QV0-25
25E5	—	25E5	PL36	—	1561	CV1064	—	R3	UU5
25L6GT	CV553	25L6GT	—	KT32	1629	CV1756	1629	—	—
25SN7GT	CV423	25SN7GT	—	—	1821	CV1443	—	R1	UU5
25U4GT	—	25U4GT	—	—	1867	—	—	R2	UU5
25Z4G	—	25Z4G	—	U31	5726	CV4007	5726	—	M8212
27GB5	—	27GB5	PL500	—	5749	CV4009	5749	—	—
30AE3	—	30AE3	PY88	—	5750	CV4012	5750	—	—
30C1	—	9A8	PCF80	LZ329	5763	CV2129	5763	—	QV03-12
30C18	—	7GV7	PCF805	—	6057	CV4004	6057	—	M8137
30FL14	—	—	PCF808	—	6058	CV4025	6058	—	M8079
30L1	CV5192	7AN7	PCC84	B319	6059	CV4006	6059	—	—
30P16	—	16A5	PL82	N329	6060	CV4024	6060	—	M8162
30P18	—	15CW5	PL84	N379	6061	CV4043	6061	—	—
30P19	—	—	PL302	N389	6062	CV4039	6062	—	M8096
30PL12	—	16A8	PCL82	—	6063	CV4005	6063	—	—
31A3	—	31A3	UY41	U142	6064	CV4014	6064	—	S6F12
35A5	—	35A5	—	—	6065	CV4015	6065	—	M8161
35L6GT	CV562	35L6GT	—	—	6067	CV4003	6067	—	M8136
35W4	—	35W4	HY90	—	6080	CV2984	6080	—	ECC230
35Z3	CV564	35Z3	—	—	6132	CV4005	6132	—	—
35Z4GT	CV2500	35Z4GT	—	U76	6146	CV3523	6146	—	QV06-20
38A3	—	38A3	UY85	U381	6158	CV4068	6158	—	—
40PPA	—	7D3	—	40PPA	6267	—	6267	EF86	6F22
40SUA	CV1267	1D5	—	U4020	6305	—	—	R10	HR1
41MPG	CV2505	15A2	—	X42	6516	CV4063	6516	—	M8082
42E	CV609	42E	—	—	6688	CV3998	6688	—	—
42MP /Pen	CV1181	7A3	—	AC2 /Pen	6870	CV5121	6870	—	—
43E	CV2514	43E	—	—	7032	—	7032	—	—
43U	CV1039	—	R2	UU5	7492	—	7492	—	—
441U	CV1039	—	R3	UU5	7489	—	7489	—	—
45A5	—	45A5	UL41	N142	7498	—	7498	—	—
45B5	—	45B5	UL84	10P18	7558	—	7558	—	—
50A5	—	50A5	—	—	A11B	—	—	R2	UU5
50BM8	—	50BM8	UCL82	10PL12	A11C	—	—	R3	UU5
50C5	CV1959	50C5	HL92	—	A11D	—	—	R2	UU5
50CD6G	—	50CD6G	—	—	A70B	—	7A2	—	AC /Pen
50L6GT	CV571	50L6GT	—	KT71	A70C	—	7A3	—	AC2 /Pen
52KU	CV1863	5V4G	—	52KU	A80A	—	15A2	—	FC4
52DDT	—	6CV7	EBC41	6LD3	AC /Pen	CV1174	7A2	—	Pen4VA
62TH	—	6CU7	ECH42	6C10	AC /S2 /	—	—	—	—
62VP	—	—	EF41	6CJ5	Pen	CV1282	8A1	—	AC /SG
63ME	—	6U5G	—	6M1	AC /SG	CV2822	8A1	—	MSP4
63TP	—	6AB8	ECL80	LN152	AC2 /Pen	CV2808	7A3	—	PenA4
65ME	—	—	EM80	6BR5	APP4A	CV1683	7A2	—	AC /Pen
66KU	—	—	EZ40	6BT4	APP4B	CV1181	7A3	—	AC2 /Pen
67PT	—	—	EL41	6CK5	APV4	CV1039	—	R3	UU5
75	CV614	75	—	—	B36	CV925	12SN7GT	—	B36
					B65	CV1988	6SN7GT	—	13D2

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Index Type	CV Type	BRIMAR		Others	Index Type	CV Type	BRIMAR		Others
		'American' Types	'European' Types				'American' Types	'European' Types	
B109	—	—	UCC85	10L14	CV697	—	12SJ7	—	—
B152	—	12AT7	ECC81	B309	CV700	—	12SR7	—	—
B309	CV455	12AT7	ECC81	E2157	CV706	—	6U7G	—	—
B319	CV5192	7AN7	PCC84	30L1	CV717	—	5R4GY	—	—
B329	—	12AU7	ECC82	E2163	CV729	—	5V4G	—	—
B339	—	12AX7	ECC83	6L13	CV730	—	6A3	—	—
B719	—	6AQ8	ECC85	6L12	CV753	—	1A3	—	1D13
B729	—	6GA8	ECC804	6/30L2	CV755	—	1A5G	—	—
BPM04	—	6AQ5	EL90	N727	CV756	—	1A5GT	—	—
C10B	CV764	1D5	—	U4020	CV764	—	1D5	—	U4020
C30B	—	4D1	—	HL1320	CV779	—	1LD5	—	—
C50B	—	8D2	—	SP13C	CV781	—	1LN5	—	—
C50N	—	9D2	—	VP1322	CV782	—	1R5	DK91	1C1
C70D	—	7D6	—	Pen383	CV783	—	154	DL91	—
CV124	—	807	—	QV05-25	CV784	—	155	DAF91	1FD9
CV131	—	9D6	EF92	W77	CV785	—	1T4	DF91	1F3
CV133	—	6C4	EC90	L77	CV797	—	2D21	EN91	20A3
CV136	—	6AM5	EL91	7D9	CV808	—	3A5	DCC90	—
CV138	—	8D3	EF91	6AM6	CV818	—	3Q4	DL95	N18
CV140	—	6AL5	EB91	6D2	CV819	—	3Q5GT	—	DL33
CV216	—	VR150/30	150C3	OD3	CV820	—	354	DL92	1P10
CV261	—	—	R10	HR2	CV850	—	6AK5	EF95	—
CV283	—	6AL5	—	—	CV851	—	6B4G	—	—
CV423	—	13D1	—	255N7GT	CV858	—	6J6	ECC91	—
CV426	—	6X2	R12	EY51	CV877	—	7A7	—	—
CV452	—	6AT6	EBC90	DH77	CV882	—	7B6	—	DH81
CV453	—	6BE6	EK90	X77	CV885	—	7C5	—	—
CV454	—	6BA6	EF93	W727	CV887	—	7C6	—	DH149
CV455	—	12AT7	ECC81	B309	CV889	—	7D8	—	Pen1340
CV484	—	354	—	—	CV895	—	7H7	—	—
CV491	—	12AU7	ECC82	E2163	CV896	—	7K7	—	—
CV492	—	12AX7	ECC83	E2164	CV900	—	7R7	—	—
CV493	—	6X4	EZ90	U78	CV901	—	7Y4	—	—
CV504	—	6U5	—	6U5/6G5	CV917	—	12J7GT	—	—
CV509	—	6V6G	—	—	CV918	—	12K7GT	—	—
CV511	—	6V6GT	—	—	CV924	—	12SL7GT	—	—
CV522	—	7B7	—	—	CV925	—	12SN7GT	—	—
CV525	—	12A6	—	—	CV1039	—	—	R3	B36
CV535	—	12AJ5GT	—	—	CV1106	—	9D2	—	UU5
CV543	—	12SK7	—	—	CV1107	—	15D2	—	VP1322
CV544	—	12SK7GT	—	—	CV1108	—	8D2	—	SP13C
CV546	—	12SQ7	—	—	CV1109	—	4D1	—	HL1320
CV547	—	12SQ7GT	—	—	CV1111	—	—	R11	—
CV553	—	25L6GT	—	—	CV1174	—	7A2	—	AC/Pen
CV562	—	35L6GT	—	—	CV1181	—	7A3	—	AC2/Pen
CV564	—	35Z3	—	—	CV1186	—	6F6G	—	KT63
CV571	—	50L6GT	—	—	CV1267	—	1D5	—	U4020
CV572	—	6X5G	—	—	CV1268	—	5Y3G	—	U50
CV574	—	6X5GT	EZ35	—	CV1282	—	8A1	—	AC/S2Pen
CV575	—	5U4G	—	U52	CV1287	—	25L6G	—	KT32
CV578	—	6A8G	—	—	CV1300	—	10D1	—	—
CV580	—	6A8GT	—	—	CV1347	—	6K8G	—	ECH35
CV581	—	6C5G	—	—	CV1352	—	—	EM80	—
CV585	—	6C6	—	—	CV1375	—	—	EF85	—
CV587	—	6Q7G	—	DH63	CV1376	—	—	EF80	—
CV589	—	6Q7GT	—	—	CV1377	—	5AR4	GZ34	—
CV591	—	6SJ7	—	—	CV1419	—	11D3	—	HL/DD/1320
CV609	—	42E	—	—	—	—	—	—	—
CV614	—	75	—	—	CV1425	—	7D5	—	—
CV615	—	76	—	—	CV1438	—	6AG6G	—	—
CV616	—	77/E	—	—	CV1443	—	—	EL33	KT61
CV617	—	80	—	—	CV1535	—	—	R1	U10
CV618	—	83	—	—	CV1633	—	—	EZ80	—
CV686	—	VR105/30	—	OC3	CV1672	—	3V4	—	—
CV692	—	OZ4	—	—	CV1741	—	7D6	—	Pen36C
					CV1758	—	6CA7	EL34	—
							1L4	DF92	1F2

# BRIMAR VALVE EQUIVALENTS

Index Type	CV Type	BRIMAR		Others	Index Type	CV Type	BRIMAR		Others
		'American' Types	'European' Types				'American' Types	'European' Types	
CV1762	—	6AK6	—	—	CV2747	—	6U5G	—	—
CV1790	—	7Z4	—	—	CV2901	—	6267	EF86	—
CV1800	—	1A7G	—	—	CV2912	—	6R7G	—	DL63
CV1802	—	1A7GT	—	DK32	CV2956	—	15D1	—	—
CV1803	—	1C5G	—	N14	CV2966	—	—	EY86	—
CV1805	—	1C5GT	—	DL35	CV2975	—	6BQ5	EL84	6P15
CV1818	—	1H5G	—	HD14	CV2984	—	6080	—	—
CV1820	—	1H5GT	—	DAC32	CV3523	—	6146	—	QV06-20
CV1823	—	1N5GT	—	DF33	CV3576	—	15A2	—	FC4
CV1831	—	2A3	—	—	CV3635	—	7D8	—	Pen1340
CV1832	—	OA2	150C2	—	CV3798	—	VR75/30	—	OA3
CV1833	—	OB2	108C1	—	CV3827	—	12C8GT	—	—
CV1856	—	5Y3GT	—	—	CV3889	—	—	EL41	—
CV1861	—	5Z3	—	—	CV3891	—	—	EZ40	—
CV1862	—	6AQ5	EL90	N727	CV3908	—	6BH6	—	—
CV1863	—	5Z4G	—	R52	CV3909	—	6BJ6	—	—
CV1870	—	6A7	—	—	CV3912	—	1U5	—	—
CV1891	—	6B7	—	—	CV3937	—	12K8GT	—	—
CV1893	—	6B8G	—	—	CV3936	—	14S7	—	—
CV1900	—	6D6	—	—	CV3937	—	14R7	—	—
CV1906	—	6E5	—	—	CV3998	—	6688	—	—
CV1911	—	6F6G	—	KT63	CV4001	—	F/6063	—	VX7113
CV1928	—	12BA6	HF93	—	CV4002	—	F/6064	—	VX7111
CV1929	—	6H6G	—	D63	CV4003	—	6067	—	VX7058
CV1931	—	6H6GT	—	—	CV4004	—	6057	—	VX7059
CV1932	—	6J5G	—	L63	CV4005	—	6063	—	VX7061
CV1934	—	6J5GT	—	—	CV4006	—	6059	—	VX7081
CV1935	—	6J7G	—	—	CV4007	—	5726	—	M8212
CV1937	—	6J7GT	—	—	CV4009	—	5749	—	—
CV1938	—	6K6G	—	—	CV4012	—	5750	—	—
CV1941	—	6K7G	—	KTW63	CV4014	—	6064	—	M8083
CV1943	—	6K7GT	—	—	CV4015	—	6065	—	VX7075
CV1944	—	6K8G	—	ECH35	CV4024	—	6060	—	QA2406
CV1946	—	6K8GT	—	—	CV4025	—	6058	—	M8079
CV1947	—	6L6G	—	KT66	CV4033	—	F/6060	—	VX7112
CV1950	—	6L7G	—	—	CV4034	—	F/6067	—	VX7120
CV1956	—	6N7G	—	—	CV4035	—	F/6057	—	VX7128
CV1958	—	6N7GT	—	—	CV4037	—	F/5750	—	VX7119
CV1959	—	50C5	HL92	—	CV4039	—	6062	—	VX7080
CV1961	—	12AU6	—	—	CV4043	—	6061	—	VX7082
CV1962	—	6R7G	—	DL63	CV4045	—	F/6061	—	VX7503
CV1969	—	6SC7	—	—	CV4049	—	F/5726	—	VX7130
CV1970	—	6SC7GT	—	—	CV4055	—	6132	—	VX7102
CV1977	—	—	UL41	—	CV4056	—	F/6132	—	VX7114
CV1978	—	6SG7	—	—	CV4063	—	6516	—	M8082
CV1981	—	6SK7	—	—	CV4068	—	6158	—	VX7124
CV1985	—	6SL7GT	—	—	CV4069	—	F/6158	—	—
CV1988	—	6SN7GT	—	B65	CV5041	—	6CL6	—	—
CV1990	—	6SQ7	—	—	CV5042	—	12BH7	—	—
CV2127	—	6CH6	EL821	7D10	CV5065	—	6U8	ECF82	—
CV2128	—	6AJ8	ECH81	6C12	CV5072	—	6CA4	EZ81	—
CV2129	—	5763	—	QV03-12	CV5073	—	6AM4	—	—
CV2135	—	6BR7	—	8D5	CV5074	—	6AF4A	—	—
CV2136	—	6BW6	—	—	CV5077	—	21A6	PL81	—
CV2212	—	13D3	—	—	CV5086	—	6BS7	—	—
CV2218	—	—	R17	—	CV5121	—	6870	—	—
CV2235	—	—	R18	EY84	CV5144	—	—	PCL83	LN309
CV2370	—	—	DL92	N17	CV5156	—	6DA6	EF89	—
CV2492	—	—	E88CC	—	CV5192	—	7AN7	PCC84	30L1
CV2500	—	35Z4GT	—	—	CV5215	—	6BL8	ECF80	6C16
CV2514	—	43	—	—	CV5220	—	7D11	—	12E13
CV2524	—	6AU6	EF94	—	CV5264	—	—	ECC804	—
CV2526	—	6AV6	—	—	CV5281	—	6CW7	ECC84	6L16
CV2544	—	78	—	—	CV5287	—	6U4GT	—	—
CV2544	—	83V	—	—	CV5307	—	807	—	—
CV2547	—	—	—	—	CV5317	—	12AH8	—	—

# BRIMAR VALVE EQUIVALENTS

Index Type	CV Type	BRIMAR			Index Type	CV Type	BRIMAR		
		'American' Types	'European' Types	Others			'American' Types	'European' Types	Others
CV5331	—	6E58	ECC89	—	<b>EBC41</b>	CV3882	6CV7	EBC41	6LD3
CV5358	—	6DJ8	ECC88	—	<b>EBC81</b>	—	6BD7A	EBC81	6LD13
CV5365	—	6EQ7A	—	—	<b>EBC90</b>	CV452	6AT6	EBC90	DH77
CV5409	—	9D7	—	—	<b>EBC91</b>	—	6AV6	EBC91	—
CV5427	—	—	R19	—	<b>EBF80</b>	—	6N8	EBF80	ZD152
CV5434	—	6FG6	EM84	—	<b>EBF89</b>	—	—	EBF89	6FD12
CV5810	—	6EJ7	EF184	6F30	<b>EC86</b>	—	6DC8	EC86	—
CV5831	—	6EH7	EF183	6F29	<b>EC88</b>	—	6CM4	EC88	—
D15	—	DI5	—	—	<b>EC90</b>	CV133	6DL4	EC90	L77
D63	CV554	6H6GT	—	EB34	<b>EC91</b>	CV417	6AQ4	EC91	6L34
D77	CV140	6AL5	EB91	6D2	<b>EC92</b>	—	—	EC92	—
D152	—	6AL5	EB91	6D2	<b>EC97</b>	—	6FV5	EC97	—
DA	CV1109	4D1	—	HL1320	<b>ECC32</b>	CV181	6SN7GT	—	13D2
DAC32	CV1820	1H5GT	—	HD14	<b>ECC81</b>	CV455	12AT7	ECC81	B152
DAF91	CV784	1S5	DAF91	1FD9	<b>ECC82</b>	CV491	12AU7	ECC82	B329
DAF96	—	1AH5	DAF96	1FD1	<b>ECC83</b>	CV492	12AX7	ECC83	6L13
DCC90	CV808	3A5	DCC90	—	<b>ECC84</b>	CV5281	6CW7	ECC84	6L16
DD6	CV140	6AL5	EB91	6D2	<b>ECC85</b>	—	6AQ8	ECC85	6L12
DF33	CV1823	1N5GT	—	Z14	<b>ECC88</b>	CV5358	6DJ8	ECC88	—
DF91	CV785	1T4	DF91	1F3	<b>ECC91</b>	CV858	6J6	—	ECC91
DF92	CV1758	1L4	DF92	1F2	<b>ECC189</b>	CV5331	6E58	ECC189	—
DF96	—	1AJ4	DF96	1F1	<b>ECC230</b>	—	6080	—	ECC230
DH63	CV587	6Q7G	—	—	<b>ECC804</b>	CV5264	6GA8	ECC804	6/30L2
DH76	—	12Q7GT	—	DL74M	<b>ECC807</b>	—	13D7	ECC807	—
DH77	CV452	6AT6	EBC90	DH77	<b>ECF80</b>	CV5215	6BL8	ECF80	6C16
DH81	CV882	7B6	—	DL82	<b>ECF82</b>	CV5065	6U8	ECF82	—
DH109	—	—	UABC80	10LD12	<b>ECF86</b>	—	6HG8	ECF86	—
DH118	—	14L7	UBC41	10LD3	<b>ECF804</b>	CV5948	—	ECF804	18D3
DH119	—	—	UBC81	10LD13	<b>ECF805</b>	—	6GV7	ECF805	6C18
DH142	—	14L7	UBC41	10LD3	<b>ECH35</b>	CV1944	6K8G	—	X61M
DH147	—	6R7G	—	DL63	<b>ECH42</b>	CV3888	6CU7	ECH42	6C10
DH149	CV887	7C6	—	DL33	<b>ECH81</b>	CV2128	6AJ8	ECH81	6C12
DH150	—	6CV7	EBC41	6LD3	<b>ECH84</b>	—	6JX8	ECH84	—
DH718	—	6CV7	EBC41	6LD3	<b>ECL80</b>	—	6AB8	ECL80	LN152
DH719	—	6AK8	EABC80	6LD12	<b>ECL82</b>	—	6BM8	ECL82	6PL12
DK32	CV1802	1A7G	—	X14	<b>ECL83</b>	—	—	ECL83	—
DK91	CV782	1R5	DK91	1C1	<b>ECL85</b>	—	6GV8	ECL85	—
DK92	CV5172	1AC6	DK92	1C2	<b>ECL86</b>	—	6GW8	ECL86	—
DK96	—	1AB6	DK96	1C3	<b>EE80</b>	—	—	EE80	6F28
DL33	CV819	3Q5GT	—	N16	<b>EF41</b>	CV3886	—	EF41	6F16
DL35	CV1803	1C5GT	—	N14	<b>EF80</b>	CV1376	6BX6	EF80	Z152
DL63	CV2912	6R7G	—	DH147	<b>EF85</b>	CV1375	6BY7	EF85	6F26
DL74M	—	12Q7GT	—	DH76	<b>EF86</b>	CV2901	6267	EF86	6F22
DL82	—	7B6	—	DH81	<b>EF89</b>	CV5156	6DA6	EF89	—
DL91	CV783	1S4	DL91	—	<b>EF91</b>	CV138	6AM6	EF91	8D3
DL92	CV2370	3S4	DL92	1P10	<b>EF92</b>	CV131	9D6	EF92	6CQ6
DL94	CV2983	3V4	DL94	1P11	<b>EF93</b>	CV454	6BA6	EF93	W727
DL95	CV818	3Q4	DL95	N18	<b>EF94</b>	CV2524	6AU6	EF94	—
DL96	—	3C4	DL96	1P1	<b>EF95</b>	CV850	6AK5	EF95	DP61
DM70	—	1M3	DM70	—	<b>EF183</b>	CV5831	6EH7	EF183	6F29
DP61	—	6AK5	EF95	PM05	<b>EF184</b>	CV5810	6EJ7	EF184	6F30
DW2	CV1443	—	R1	UU5	<b>EF804</b>	—	—	EF804	—
DW3	—	—	R2	DW4-350	<b>EH90</b>	—	6C56	EH90	—
DW4-350	CV1796	—	R2	UU5	<b>EK90</b>	CV453	6BE6	EK90	—
DY86	—	1S2	DY86	—	<b>EL33</b>	CV2938	6AG6G	EL33	KT61
DY87	—	1S2A	DY87	—	<b>EL34</b>	CV1741	6CA7	EL34	—
E88CC	CV2492	6922	E88CC	—	<b>EL41</b>	CV3889	—	EL41	6CK5
E2016	CV1758	9D6	EF92	6CQ6	<b>EL84</b>	CV2975	6BQ5	EL84	6P15
E2157	CV455	12AT7	ECC81	B152	<b>EL90</b>	CV1862	6AQ5	EL90	N727
E2163	CV491	12AU7	ECC82	B329	<b>EL91</b>	CV136	6AM5	EL91	7D9
E2164	CV492	12AX7	ECC83	6L13	<b>EL506</b>	—	—	EL506	—
EA50	CV1092	—	EA50	6D1	<b>EL821</b>	CV2127	6CH6	EL821	7D10
EABC80	—	6AK8	EABC80	6LD12	<b>ELL80</b>	—	6HU8	ELL80	—
EB34	CV1054	6H6GT	—	EB34	<b>EM71</b>	—	—	EM71	—
EB91	CV140	6AL5	EB91	6D2	<b>EM81</b>	CV5055	6DA5	EM81	—



# BRIMAR VALVE EQUIVALENTS

Index Type	CV Type	BRIMAR		Others	Index Type	CV Type	BRIMAR		Others
		'American' Types	'European' Types				'American' Types	'European' Types	
EM84	CV5434	6FG6	EM84	—	M8083	CV4014	6064	—	M8083
EM85	—	—	EM85	—	M8096	CV4039	6062	—	VX7080
EM87	—	6HU6	EM87	—	M8136	CV4003	6067	—	VX7058
EM840	—	—	EM840	—	M8137	CV4004	6057	—	VX7059
EN91	CV797	2D21	EN91	20A3	M8140	CV4002	F/6064	—	VX7111
EY51	CV426	6X2	R/2	U43	M8144	CV4033	F/6060	—	VX7112
EY83	—	—	EY83	—	M8149	CV4034	F/6067	—	VX7120
EY84	CV2235	—	R/8	—	M8161	CV4015	6065	—	VX7075
EY86	CV2966	6S2	EY86	—	M8162	CV4024	6060	—	QA2406
EY87	—	6S2A	EY87	—	M8212	CV4007	5726	—	M8212
EZ35	CV574	6X5GT	EZ35	U147	M8214	CV4035	F/6057	—	VX7128
EZ40	CV3891	—	EZ40	UU9	M8237	CV4049	F/5726	—	VX7130
EZ80	CV1535	6V4	EZ80	—	MKT4	CV1683	7A2	—	AC/Pen
EZ81	CV5072	6CA4	EZ81	UU12	MP/Pen	CV1683	7A2	—	AC/Pen
EZ90	CV493	6X4	EZ90	U78	MSP4	CV1282	8A1	—	AC/SG
FC4	CV2955	15A2	—	MX40	MS/Pen	CV1282	8A1	—	AC/SG
GD150A/S	CV216	VR150/30	150C3	OD3	MU12	CV1039	—	R2	UU5
GZ30	—	5Z4G	GZ30	R52	MU14	CV1039	—	R3	UU5
GZ31	—	5U4G	GZ31	U52	MX40	CV3576	15A2	—	FC4
GZ34	CV1377	5AR4	GZ34	—	N14	CV1803	1C5GT	—	DL35
HABC80	—	—	HABC80	—	N16	CV819	3Q5GT	—	DL33
HAD	CV1419	11D3	—	HL/DD/1320	N17	CV2370	3S4	DL92	1P10
HBC90	—	12AT6	HBC90	—	N18	CV818	3Q4	DL95	N18
HBC91	—	12AV6	HBC91	—	N19	—	3V4	DL94	1P11
HD14	CV1818	1H5GT	—	DAC32	N25	—	3C4	DL96	1P1
HF93	CV1928	12BA6	HF93	—	N30	—	7D5	—	PP13A
HF94	—	12AU6	HF94	—	N40	—	7A3	—	N40
HK90	—	12BE6	HK90	—	N41	CV1181	7A3	—	AC2/Pen
HL13C	CV1109	4D1	—	HL1320	N77	CV136	6AM5	EL91	7D9
HL92	CV1959	50C5	HL92	—	N119	—	4B5	UL84	10P18
HL1320	CV3502	4D1	—	HL1320	N142	—	4A5	UL41	451PT
HL/DD/1320	CV3503	11D3	—	13DHA	N144	—	6AM5	EL91	7D9
HM04	—	6BE6	EK90	X77	N47	—	6AG6G	EL33	KT61
HP6	CV138	6AM6	EP91	8D3	N148	—	7C5	—	N148
HP4101C	CV1282	8A1	—	AC/SG	N150	—	—	EL41	6CK5
HR1	—	—	R/0	6305	N152	—	21A6	PL81	N359
HR2	CV261	—	R/0	6304	N154	—	16A5	PL82	30P16
HY90	—	—	HY90	—	N329	—	16A5	PL81	N154
IW3	CV1039	—	R2	UU5	N359	—	21A6	PL81	N152
IW4	CV1039	—	R3	IW4-500	N379	—	15CW5	PL84	30P18
IW4-350	—	—	R2	UU5	N389	—	—	PL302	30P19
IW4-500	CV1039	—	R3	UU5	N709	—	6BQ5	EL84	6P15
KD21	—	VR75/30	—	OA3	N727	CV1862	6AQ5	EL90	BPM08
KD24	—	VR105/30	—	KD24	OM4	—	6R7G	—	DL63
KT32	CV1287	25L6GT	—	KT32	OM9	—	6AG6G	EL33	KT61
KT41	CV1181	7A3	—	AC2/Pen	OM10	CV1581	6K8G	—	ECH35
KT42	CV1174	7A2	—	AC/Pen	PC86	—	4CM4	PC86	—
KT61	CV2938	6AG6G	EL33	N147	PC88	—	4DL4	PC88	—
KT63	CV1911	6F6G	—	KT63	PC97	—	4FY5	PC97	—
KT66	CV1075	6L6G	—	KT66	PCC84	CV5192	7AN7	PCC84	30L1
KT71	—	50L6GT	—	KT71	PCC85	—	9AQ8	PCC85	—
KT88	CV5220	7D11	—	12E13	PCC88	—	7DQ8	PCC88	—
KTW63	CV1941	6K7G	—	W63	PCC89	—	7FC7	PCC89	—
KTW74M	—	12K7GT	—	W76	PCC189	—	7E58	PCC189	—
KTZ63	—	6J7G	—	Z63	PCC806	—	—	PCC806	30L17
KY80	—	2I2	R20	U26	PCE82	—	—	PCE82	30FL12
L63	CV1932	6J5G	—	—	PCF80	—	9A8	PCF80	30C1
L77	CV133	6C4	EC90	L77	PCF82	—	9U8	PCF82	—
LN119	—	50B8M	UCL82	10PL12	PCF86	—	8HG8	PCF86	—
LN152	—	6AB8	ECL80	63TP	PCF801	—	8GJ7	PCF801	—
LN309	CV5144	—	PCL83	LN309	PCF802	—	9JW8	PCF802	—
LZ319	—	9A8	PCF80	30C1	PCF805	—	7GV7	PCF805	30C18
LZ329	—	9A8	PCF80	30C1	PCF808	—	—	PCF808	30FL14
M8079	CV4025	6058	—	M8079	PCL82	—	16A8	PCL82	30PL12
M8082	CV4063	6516	—	M8082	PCL83	CV5144	—	PCL83	LN309

See also figure nought

# BRIMAR VALVE EQUIVALENTS

Index Type	CV Type	BRIMAR			Index Type	CV Type	BRIMAR		
		'American' Types	'European' Types	Others			'American' Types	'European' Types	Others
PCL84	—	15DQ8	PCL84	—	U49	—	2J2	R20	U26
PCL85	—	18GV8	PCL85	—	U50	CV1268	5Y3GT	—	U50
PCL86	—	14GW8	PCL86	—	U52	CV1071	5U4G	GZ31	U52
Pen4VA	CV1174	7A2	—	AC/Pen	U70	—	6X5GT	EZ35	U147
Pen4VB	—	7A3	—	AC2/Pen	U74	—	35Z4GT	—	U76
Pen13C	CV3635	7D8	—	Pen1340	U76	—	35Z4GT	—	U74
Pen36C	CV1672	7D6	—	Pen383	U78	CV493	6X4	EZ90	U78
Pen383	CV1456	7D6	—	Pen36C	U82	CV3919	7F4	—	U149
Pen1340	CV3635	7D8	—	Pen13C	U119	—	38A3	UY85	U381
Pen3520	—	7D6	—	Pen383	U142	—	31A3	UY41	3115U
PenA4	CV3638	7A3	—	AC2/Pen	U147	—	6X5GT	EZ35	U70
PL32	—	25E5	PL36	—	U149	—	7F4	—	U82
PFL730	—	—	PFL200	—	U150	—	—	EZ40	UU9
PL81	CV5077	21A6	PL81	N152	U151	—	6X2	R/2	EY51
PL82	—	16A5	PL82	30P16	U153	—	17Z3	PY81	U153
PL83	—	15A6	PL83	—	U154	—	19Y3	—	U192
PL84	—	15CV5	PL84	30P18	U192	—	19Y3	PY82	195U
PL302	—	—	PL302	30P19	U193	—	—	PY801	U349
PL500	—	27GB5	PL500	—	U291	—	—	PY32	U291
PM84	—	—	PM84	—	U319	—	19Y3	PY82	U192
PM04	—	6BA6	EF93	W727	U349	—	—	PY801	U193
PM05	—	6AK5	EF95	DP61	U381	—	38A3	UY85	U119
PM07	—	6AM6	EF91	8D3	U709	CV3996	6CA4	EZ81	UU12
PP13A	CV1425	7D5	—	N30	U718	—	—	EZ40	UU9
PP35	—	7D6	—	Pen383	U4020	CV1267	1D5	—	405UA
PT4	CV1181	7A3	—	AC2/Pen	UABC80	—	—	UABC80	10LD12
PTA	CV1425	75D	—	N30	UBC41	—	14L7	UBC41	10LD3
PY32	—	—	PY32	U291	UBC81	—	—	UBC81	10LD13
PY33	—	—	PY33	—	UBF89	—	19FL8	UBF89	10FD12
PY81	—	17Z3	PY81	U153	UCC85	—	—	UCC85	10L14
PY82	—	19Y3	PY82	U192	UCH42	—	14K7	UCH42	X142
PY83	—	—	PY83	—	UCH81	—	19D8	UCH81	10C14
PY88	—	30AE3	PY88	—	UCL82	—	50BM8	UCL82	10PL12
PY800	—	—	PY800	—	UCL83	—	—	UCL83	—
PY801	—	—	PY801	U193	UF41	—	—	UF41	12AC5
QV03-12	CV2129	5763	—	QV03-12	UF80	—	—	UF80	—
QV05-25	CV124	807	—	5B25OA	UF89	—	—	UF89	—
QV06-20	CV3523	6146	—	QV06-20	UL41	CV1977	45A5	UL41	N142
R1	CV1443	—	R1	UU5	UL84	—	45B5	UL84	10P18
R2	—	—	R2	UU5	UM80	—	—	UM80	19BR5
R3	CV1039	—	R3	UU5	UR1C	—	1D5	—	U4020
R4A	—	—	R3	UU5	UU3	—	—	R2	IW4-350
R10	CV261	—	R10	6305	UU4	CV3759	—	R2	1867
R11	CV1111	—	R11	—	UU5	CV1039	—	R3	IW4-500
R12	CV426	6X2	R12	EY51	UU9	CV1855	—	EZ40	6BT4
R16	—	1T2	R16	U37	UU12	CV5072	6CA4	EZ81	U709
R17	CV2218	—	R17	—	UU60/250	—	—	R2	UU5
R18	CV2235	—	R18	EY84	UU120/350	CV1796	—	R2	UU5
R19	CV5427	1X2B	R19	—	UU120/500	—	—	R3	UU5
R20	—	2J2	R20	U26	UY41	—	—	UY41	UU5
R42	—	—	R2	UU5	UY85	—	31A3	UY85	U142
R52	CV1863	524G	GZ30	R52	VFT6	—	38A3	—	U381
RZ	—	1D5	—	U4020	VHT4	—	6U5G	—	6M1
SP6	CV138	6AM6	EF91	8D3	VP6	CV2955	15A2	—	FC4
SP13C	CV3804	8D2	—	C50B	—	—	9D6	EF92	6CQ6
SPT4A	CV1282	8A1	—	AC/SG	VP13C	CV3790	9D2	—	VP1322
STV150/30	—	0A2	150C2	STV150-30	VP1322	CV3796	9D2	—	13VPA
SU61	—	6X2	R12	EY51	VR75/30	CV3798	VR75/30	—	0A3
TDD13C	CV1419	11D3	—	HL/DD/1320	VR105/30	CV686	VR105/30	—	0C3
U10	CV1443	—	R1	UU5	VR150/30	CV216	VR150/30	150C3	0D3
U14	CV1796	—	R3	UU5	W17	—	—	—	1F3
U26	—	2J2	R20	U49	W25	CV785	1T4	DF91	1F1
U31	CV3753	25Z4	—	U31	W63	—	6K7G	—	KTW63
U37	CV2289	1T2	R16	U37	W76	—	12K7GT	—	KTW74M
U43	—	6X2	R12	EY51	W77	CV131	9D6	EF92	6CQ6

## BRIMAR VALVE EQUIVALENTS

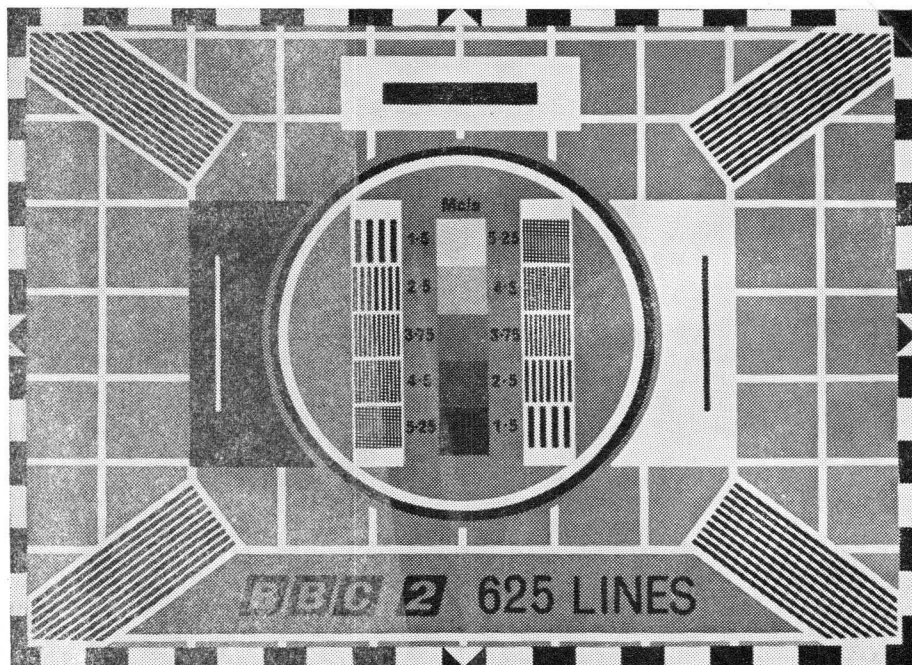
Index Type	CV Type	BRIMAR		Others	Index Type	CV Type	BRIMAR		Others
		'American' Types	'European' Types				'American' Types	'European' Types	
<b>W81</b>	—	7H7	—	W143	<b>X77</b>	CV453	6BE6	EK90	X727
<b>W142</b>	—	—	UF41	12AC5	<b>X81</b>	—	7S7	—	X148
<b>W143</b>	—	7H7	—	W148	<b>X119</b>	—	19D8	UCH81	10C14
<b>W148</b>	—	7H7	—	W81	<b>X142</b>	—	14K7	UCH42	141TH
<b>W149</b>	—	7B7	—	—	<b>X147</b>	—	6K8G	—	X61M
<b>W150</b>	—	—	EF41	6CJ5	<b>X148</b>	—	7S7	—	X81
<b>W719</b>	—	7BY7	EF85	6F26	<b>X150</b>	—	6CU7	ECH42	6C10
<b>W727</b>	CV454	6BA6	EF93	PM04	<b>X719</b>	—	6AJ8	ECH81	6C12
<b>WD119</b>	—	19FL8	UBF89	10FD12	<b>X727</b>	CV453	6BE6	EK90	X77
<b>WD709</b>	—	6N8	EBF80	ZD152	<b>Y61</b>	CV1103	6U5G	—	6M1
<b>X14</b>	—	1A7G	—	DK32	<b>Y63</b>	CV1103	6U5G	—	6H5
<b>X17</b>	CV782	1R5	DK91	1C1	<b>Z14</b>	—	1N5GT	—	DF33
<b>X20</b>	—	1AC6	DK92	1C2	<b>Z63</b>	—	6J7G	—	KTZ63
<b>X25</b>	—	1AB6	DK96	1C3	<b>Z77</b>	CV138	6AM6	EF91	8D3
<b>X42</b>	CV3576	1SA2	—	MX40	<b>Z152</b>	—	6BX6	EF80	Z719
<b>X61M</b>	CV1944	6K8G	—	X65	<b>Z719</b>	—	6BX6	EF80	Z152
<b>X63</b>	CV3825	6A8G	—	—	<b>Z729</b>	—	6267	EF86	6F22
<b>X65</b>	CV3826	6K8G	—	X147	<b>ZD17</b>	CV784	1S5	DAF91	1FD9
<b>X71M</b>	—	12K8GT	—	X76M	<b>ZD25</b>	—	1AH5	DAF96	1FD1
<b>X76M</b>	—	12K8GT	—	X71M	<b>ZD152</b>	—	6N8	EBF80	WD709

# BRIMAR EQUIVALENTS

## TELETUBES

Index Type	Brimar	Mazda	Others	Index Type	Brimar	Mazda	Others
<b>17CVP4</b>	C17AA	CME1706	AW43-88	<b>C23 /7A</b>	C23AK	CME2302	AW59-90
<b>212K</b>	C21KM	—	MW53-80	<b>C23 /10A</b>	AW59-91	CME2303	—
<b>7204A</b>	C14FM	CRM144	—	<b>C23 /10AP</b>	A59-13W	CME2306	A59-13W
<b>7205A</b>	—	CME1402	—	<b>C23AK</b>	C23AK	CME2302	AW59-90
<b>7404A</b>	—	CRM172	—	<b>C23AKT</b>	C23AKT	CME2307	A59-14W
<b>7405A</b>	—	CME1703	—	<b>C24KM</b>	C24KM	—	MW61-80
<b>7406A</b>	—	CME1705	—	<b>CME141</b>	—	CME141	—
<b>7502A</b>	C21TM	CRM212	—	<b>CME1101</b>	—	CME1101	—
<b>7503A</b>	—	CME2101	—	<b>CME1201</b>	A31-18W	CME1201	—
<b>7601A</b>	—	CME1901	AW47-97	<b>CME1402</b>	—	CME1402	7205A
<b>7701A</b>	—	CME2301	AW59-95	<b>CME1601</b>	A40-11W	CME1601	—
<b>A31-18W</b>	A31-18W	CME1201	—	<b>CME1703</b>	—	CME1703	7405A
<b>A40-11W</b>	A40-11W	CME1601	—	<b>CME1705</b>	—	CME1705	7406A
<b>A47-13W</b>	A47-13W	CME1906	—	<b>CME1706</b>	C17AA	CME1706	17CVP4
<b>A47-14W</b>	A47-14W	CME1908	A47-14W	<b>CME1901</b>	—	CME1901	7601A
<b>A47-17W</b>	A47-17W	CME1905	—	<b>CME1902</b>	C19AK	CME1902	AW47-90,
<b>A47-25W</b>	A47-25W	CME1907	—	<b>CME1903</b>	AW47-91	CME1903	C19 /7A
<b>A59-12W</b>	A59-12W	CME2305	—	<b>CME1905</b>	A47-17W	CME1905	—
<b>A59-13W</b>	A59-13W	CME2306	—	<b>CME1906</b>	A47-13W	CME1906	A47-13W
<b>A59-14W</b>	C23AKT	CME2307	—	<b>CME1907</b>	A47-25W	CME1907	—
<b>A59-15W</b>	A59-15W	CME2308	A59-15W	<b>CME1908</b>	A47-14W	CME1908	A47-14W
<b>AW36-20</b>	C14PM	—	C14 /3A; SE14 /70	<b>CME2101</b>	—	CME2101	7503A
<b>AW43-88</b>	C17AA	CME1706	17CVP4	<b>CME2103</b>	C21AA	CME2103	AW53-88
<b>AW47-90</b>	C19AK	CME1902	C19 /7A	<b>CME2301</b>	—	CME2301	7701A
<b>AW47-91</b>	AW47-91	CME1903	AW47-91	<b>CME2302</b>	C23AK	CME2302	AW59-90, C23 /7A
<b>AW47-97</b>	—	CME1901	7601A	<b>CME2303</b>	AW59-91	CME2303	C23 /10A
<b>AW53-88</b>	C21AA	CME2103	C21 /7A	<b>CME2305</b>	A59-12W	CME2305	—
<b>AW59-90</b>	C23AK	CME2302	AW59-90	<b>CME2306</b>	A59-13W	CME2306	C23 /10AP
<b>AW59-91</b>	AW59-91	CME2303	7701A	<b>CME2307</b>	C23AKT	CME2307	A59-14W
<b>AW59-95</b>	—	CME2301	—	<b>CME2308</b>	A59-15W	CME2308	A59-15W
<b>C9A</b>	C9A	CRM92	—	<b>CRM92</b>	C9A	CRM92	—
<b>C12A</b>	C12A	CRM121	—	<b>CRM121</b>	C12A	CRM121	—
<b>C14FM</b>	C14FM	CRM144	—	<b>CRM144</b>	C14FM	CRM144	7204A
<b>C17AA</b>	C17AA	CME1706	AW43-88	<b>CRM172</b>	—	CRM172	7404A
<b>C19 /7A</b>	C19AK	CME1902	AW47-90	<b>CRM174</b>	C17FM	CRM174	—
<b>C19 /10A</b>	AW47-91	CME1903	AW47-91	<b>CRM212</b>	C21TM	CRM212	7502A
<b>C19 /10AP</b>	A47-13W	CME1906	C19 /10AP	<b>MW53-80</b>	C21KM	—	212K
<b>C19AK</b>	C19AK	CME1902	AW47 /90	<b>MW61-80</b>	C24KM	—	—
<b>C21 /7A</b>	C21AA	CME2103	AW53-88	<b>SE14 /70</b>	C14PM	—	AW36-20
<b>C21KM</b>	C21KM	—	MW53-80 212K				

# 625-LINE TEST CARD



Reproduced by courtesy BBC Engineering Information Department.

## NOTES ON USE

**CONTRAST** Adjust for equal brightness difference between adjacent squares in the centre column.

**PICTURE SIZE** The transmitted picture has 4:3 aspect ratio whereas most CRT screens are 5:4 for reasons of bulb strength. It is usual to adjust HEIGHT to exactly fill the screen while losing a small margin of picture at the sides.

**LINEARITY** Adjust for true circles and square background squares.

**FOCUS UNIFORMITY** Check the diagonal black and white stripes in the corners and compare with the focus of the central area. The diagonal stripes correspond to a video frequency of about 1.5 Mc/s.

**BANDWIDTH & RESOLUTION** The two columns of gratings within the centre circle are calibrated in Mc/s corresponding to the video frequency necessary for their clear reproduction.

**L.F. VIDEO RESPONSE** Poor L.F. response is revealed by streaking on the right-hand sides of the top centre black-on-white rectangles.

**REFLECTIONS** Observe white vertical line on black background and black vertical line on white background. Ghost signals caused by propagation reflections will appear displaced to the right and may be either negative or positive images.

# BRIMAR SERVICE DEPOTS

for examination of guarantee claims

## VALVES

Guarantee 3 months—claim on BVA forms

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<b>ALL U.K.</b>	BRIMAR VALVE SERVICE Brimsdown, Enfield, Middlesex	Telephone: London HOWard 1201
<b>EIRE</b>	<i>Appointed service depot Brimar</i> Brownlee Bros. Ltd., 32 Molesworth Street, Dublin 2	Telephone: Dublin 67201

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## TELETUBES

Guarantee 24 months—no registration\*—claim on Brimar  
Guarantee card.

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<b>LONDON</b>	BRIMAR TELETUBE SERVICE Brimsdown, Enfield, Middlesex.	Telephone: London HOWard 1201
<b>BIRMINGHAM</b>	BRIMAR TELETUBE SERVICE 24 Sheepcote Street, Birmingham 15	Telephone: Birmingham MIDland 5291
<b>GLASGOW</b>	BRIMAR TELETUBE SERVICE 517 Lawmoor Street, Glasgow C.5.	Telephone: Glasgow SOuth 5151
<b>LEEDS</b>	<i>Teletube Reception only</i> BRIMAR WHOLESALER DEPOT 3 Ring Road, Lower Wortley, Leeds 2.	Telephone: Leeds 630441
<b>MANCHESTER</b>	<i>Teletube Reception only</i> BRIMAR WHOLESALER DEPOT Thorn House, Derby Street, Cheetham, Manchester 8.	Telephone: DEAnsgate 2499
<b>SUNDERLAND</b>	BRIMAR TELETUBE SERVICE Thorn-AEI Factory A, Pallion New Road, Sunderland.	Telephone: Sunderland 70401
<b>CHANNEL ISLANDS</b>	<i>Appointed Teletube service depot for Brimar</i> J. J. Eastick & Sons Ltd., St. Helier, Jersey.	Telephone: Jersey Central 22901
<b>BELFAST</b>	<i>Teletube Reception only</i> BRIMAR WHOLESALER DEPOT Associated Electrical Industries Ltd., 37 Corporation Street, Belfast.	Telephone: Belfast 32977
<b>EIRE</b>	<i>Appointed service depot for Brimar</i> Brownlee Bros. Ltd., 32 Molesworth Street, Dublin 2.	Telephone: Dublin 67201

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\*For details of claims procedure, ask for leaflet 'Brimar Picture Tube Guarantees 1966'.

**THORN-AEI RADIO VALVES & TUBES LTD.**  
**HEAD OFFICE: 7 Soho Square, London W.1**

# BRIMAR IN BRITAIN

**GLASGOW**  
Picture Tube Service Depot  
Trade Depot

**SUNDERLAND**  
Picture Tube Factory  
Valve Factory  
Picture Tube Service Depot

**BELFAST**  
Trade Depot  
Picture Tube Service Reception

**LEEDS**  
Trade Depot  
Picture Tube Service Reception

**MANCHESTER**  
Trade Depot  
Picture Tube Service Reception

**DUBLIN**  
Appointed Distributors  
Valve & Tube Service Depot

**BIRMINGHAM**  
Picture Tube Service Depot  
Trade Depot

**BRIMSDOWN**  
RESEARCH CENTRE  
Applications Laboratory  
Colour TV Tube Development  
B & W TV Tube Development  
Industrial Tube Development  
Semiconductor Development  
TV Tube & Semiconductor Life Test  
MANUFACTURE  
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Industrial C.R. Tubes  
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Order Office  
Central Stores  
Transport  
SERVICE  
Valve Service Dept  
Picture Tube Service Dept  
Semiconductor Service Dept  
FINANCE  
All Departments

**LONDON**  
Head Office  
Export Division

**BROMLEY**  
Pressed Parts Factory

**SEVENOAKS (Dunton Green)**  
Valve Assembly Feeder Factory

**ROCHESTER**  
Valve Factory  
Valve Development  
Valve Life Test  
Metallurgical Research  
Chemical Research  
Physics Research

**JERSEY** Appointed Tube Service Depot

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Omniscan Inc. BBC.

# BRIMAR

