

REPLACEMENTLIST

RADIOTUBES

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## Old coding for European radio-tubes

Letter = heater current (heater voltage = 4 V)

A = 0.06 - 0.1 A  
B = 0.1 - 0.2 A  
C = 0.2 - 0.4 A  
D = 0.4 - 0.7 A  
E = 0.7 - 1.25 A  
F = 1.25 A and higher

First two figures = tube-type third figure = sequence

41. en 51. = Double grid tube (tetrode)  
42. en 52. = H.F. screen-grid tube  
43. en 53. = Penthode (power)  
44. en 54. = Binode.  
45. en 55. = H.F. penthode, selectode.  
48. en 58. = Mixer-hexode.  
49. en 59. = Hexode, selectode.

Example: A415 is a tetrode with a heater current between 0.06 and 0.1 A

## Coding for USA radio-tubes

First figures = rounded value of heatervoltage

1 = 1.2 V - 1.4 V DC  
4 = 4 V  
5 = 5 V  
6 = 6.3 V  
12 = 12.6 V  
28 = 28 V  
50 = 50 V  
and so on

Letters = sequence

If two tubes only have different first figures, in most cases those tubes are equal, except for the heater-voltage.

Figure = tube-type

3 = rectifier  
4 = triode  
5 = final tube  
6 = penthode  
7 = double-triode  
8 = penthode + triode

**There are exceptions!**

Final letters = details

A = special type  
B = special type  
GT = glass tube

Examples:

6V6GT is a penthode with a heater voltage of 6.3 Volt and a glass envelope.  
(The normal version of 6V6 has a steel envelope.)

6CW7 is a double triode with a heater voltage of 6.3 Volt

12AT7 is a double triode with a heater voltage of 12.6 Volt  
(The heater of this particular tube has a center tap for operation at 6.3 Volt.)

## Coding for European radio-tubes

1st letter = Heater voltage or current

A = 4 V AC  
B = 180 mA DC  
C = 200 mA DC or AC  
D = 1.2 - 1.4 V DC  
E = 6.3 V DC or AC  
F = 13 V DC or AC  
G = 5 V AC  
H = 12.6 V DC or AC  
K = 2 V DC  
O = Cold Cathode  
P = 300 mA DC or AC  
U = 100 mA DC or AC  
V = 50 mA DC or AC

Next letter(s) = tubetype

A = single diode  
B = double diode  
C = triode  
D = powertriode  
E = tetrode (no powertube)  
F = pentode (no powertube)  
H = hexode or heptode  
K = octode or heptode  
L = powertetrode or pentode  
M = tuning-indicator  
P = tube with secondary emission  
Q = enneode  
T = other  
U = gasfilled singlephase rectifier  
X = gasfilled doublephase rectifier  
Y = singlephase rectifier  
Z = doublephase rectifier

Figure = socket type and sequence

<10 = P - socket or 4 pin or 5 pin socket  
10 - 19 = G8A = German socket  
20 - 29 = B8G = keysocket  
30 - 39 = I.O. = octalsocket  
40 - 49 = B8A = rimlock socket  
50 - 59 = B9G = keysocket or wires  
60 - 69 = ?  
70 - 79 = B8G = keysocket  
80 - 89 = B9A = noval.  
90 - 99 = B7G = 7-pin miniature.  
180 - 189 = B9A = noval  
500 - = B9D = magnoval  
800 - = B9A = noval

Example:

ECC82 is a double triode with a heater voltage of 6.3 Volt and a B9A socket.

DIODES					
European type	USA type	3-digit CV	4 digit CV	other	NATO STOCK NUMBER
AB1					
AB2					
CB2					
DA90	1A3	CV753			
EA50	2B35	CV375	CV1092	VR92	
EAA11					
EAA91	6AL5	CV140 CV238	CV4007 CV4025 CV2004 CV2005 CV2882	JAN5726 M8079 M8212	5960-00-188-3544 5960-00-879-5078 5960-99-000-0140 5960-99-000-4025
EAA901S					
EAB1					
EB4					
EB11					
EB34			CV1054	AR DD5 VR54	
EB41			CV3881		
EB11					
EB91 = EAA91 with larger glass envelope					
KB2					
UAA11					
UAA91					
UB41					
	6BJ7				
CY1					
CY2					
CY31			CV1402		
DY30	1B3GT		CV1830		
DY80	1X2A				
DY86	1S2				
DY87					
EY51	6X2	CV426			
EY80	6U3				
EY81	6R3		CV1931		
EY82	6N3				
EY83					
EY84			CV2235 CV4044		5960-99-000-4044
EY86	6S2		CV2966		
EY87	6S2				
EY88	6AL3				
EY91		CV135			
PY31					
PY80	19X3				
PY81	17Z3				
PY82	19Y3				
PY83					
PY88	30AE3				
PY500					

DIODES (continued)					
European type	USA type	3-digit CV	4 digit CV	other	NATO STOCK NUMBER
UY1					
UY2					
UY11					
UY21					
UY31					
UY41					
UY42					
UY82					
UY85					
UY89					
UY92					
AZ1			CV2860		
AZ3					
AZ4					
AZ11					
AZ12					
AZ21					
AZ31			CV2862		
AZ32					
AZ33					
AZ41			CV3892		
AZ50			CV1264		
EZ2					
EZ3					
EZ4					
EZ11					
EZ12					
EZ22		CV346			
EZ35					
EZ40	6BT4		CV3891		
EZ41					
EZ80	6V4		CV1535		5960-17-005-9524
EZ81	6AC4		CV5072		
EZ90	6X4	CV493			5960-00-272-9182 5960-99-000-4005
GZ32	5AQ4	CV593			
GZ34	5AR4		CV1377		5960-99-000-1377
GZ37					

TRIODES					
European type	USA type	3-digit CV	4 digit CV	other	NATO STOCK NUMBER
DC11					
DC25					
DC80					
DC90					
DC93					
DC96					
EC31			CV1433		
EC80	6Q4		CV1886		5960-99-000-1886
EC81	6R4		CV1865 CV1888		5960-17-007-5353
EC84	6AJ4				
EC86	6CM4				
EC88	6DL4				
EC90	6C4	CV133			5960-00-849-8845
EC91	6AQ4	CV193 CV417 CV419	CV4070		5960-99-000-0417 5966-99-000-4070
EC92	6AB4				
EC93	6BS4				
EC95	6ER4				
EC97	6FY4				
PC86	4CM4				
PC88	4DL4				
PC92					
PC93					
PC95					
PC96					
PC97					
PC900	4HA4				
UC92					
	6AF4A				
	6AM4				
	6BN4				
	6CB4				
	6CW4				
	6DS4				
	6GK5				
	6J4		CV1763		
	6T4				
DCC90					
ECC32	6SN7	CV181			5960-99-000-0181
ECC33			CV2821		
ECC34					
ECC35		CV569			
ECC40			CV3884		
ECC81	12AT7	CV455	CV4024		5960-00-262-0167 5960-00-179-4446 5960-99-000-4024

**TRIODES (continued)**

<b>European type</b>	<b>USA type</b>	<b>3-digit CV</b>	<b>4 digit CV</b>	<b>other</b>	<b>NATO STOCK NUMBER</b>
ECC82	12AU7	CV491	CV2007 CV2011 CV4003	6189 M8136	5960-00-134-6012 5960-99-000-4003
ECC83	12AX7	CV492	CV4004	7025 M8137	5960-00-827-8782 5960-99-000-4004
ECC84	6CW7		CV5281		
ECC85	6AQ8				5960-17-005-9516
ECC86	6GM8				
ECC87					
ECC88	6DJ8		CV5358		5960-00-880-0457
ECC89	6CF7				
ECC91	6J6	CV858	CV4031	6106 M8081	5960-00-134-6021 5960-00-188-3976 5960-00-262-0160
ECC186					
ECC188					
E188CC					5960-00-806-5614
ECC189	6ES6		CV5331		5960-17-024-4376
ECC807					
PCC84	7AN7				
PCC85	9AQ8				
PCC88					
PCC189	7ES8				
UCC85					
	6BQ7A				
	6BS8				
	6BX8				
	6BZ7				
	6BZ8				
	6CG7				
	6ES8				
	6EU7				
	12AV7				
	12AY7		CV3650		
	12AZ7				
	12BH7				
	6EZ8				



PENTHODES					
European type	USA type	3-digit CV	4 digit CV	other	NATO STOCK NUMBER
AF3			CV2833		
AF7					
CF3				NF2	
CF7					
CF50					
DF11					
DF21					
DF22					
DF33	1N5				
DF91	1T4	CV785			
DF92	1L4		CV1785 CV2795		
DF96	1AJ4				
DF97					
DF651					
DF703					
EF5					
EF6					
EF9			CV1427		
EF11					
EF12					
EF12S					
EF13					
EF14					
EF15					
EF22		CV303			5960-99-000-0303
EF36			CV1056 CV1404	NR49 VR56	
EF37		CV358			5960-99-000-0358
EF37-A			CV5080		5960-99-000-5080
EF39			CV1053 CV1464	APR34	
EF40			CV3885		5960-17-024-1725
EF41	6CJ5		CV3886		5960-99-000-3886
EF42			CV3887		5960-17-024-1726
EF43					
EF50 EF50N			CV1091 CV1587	ARP35 VR87 VR87A VT250	5960-99-000-1091
EF51		CV305			5960-99-000-0305
EF54		CV380	CV1136		
EF55		CV137			
EF80	6BX6		CV1376		
E80F			CV2729		
EF83					
EF85	6BY7		CV1375		5960-12-120-9852
EF86			CV2901	6267	5960-99-000-4085

PENTHODES (continued)					
European type	USA type	3-digit CV	4 digit CV	other	NATO STOCK NUMBER
EF87					
EF88					
EF89	6DA6		CV5156		5960-17-007-8411
EF91	6AM6	CV138	CV4014 CV1955 CV2001	6064 M8083	5960-99-000-0138 5960-99-000-4014
EF92	6CQ6	CV131	CV4015	M8161	5960-99-000-0131 5960-99-000-4015
EF93	6BA6	CV454	CV4009	JAN5749	5960-99-000-0454 5960-99-000-4009 5960-00-134-6004
EF94	6AU4 6AU6		CV2524 CV4023		5960-00-166-7676 5960-00-179-3710
EF95	6AK5	CV850	CV4010	5645 M8100	5960-00-134-6031 5960-00-193-5115 5960-99-000-4010
EF96	6AG5 6AH6				
EF97	6ES6				
EF98	6ET6				
E180F			CV3998	JAN6688	5960-00-820-8717
EF183	6EH6				5960-00-729-1774
EF184	6EJ7				5960-17-029-9519
EF800					
EF802					
EF804					
HF93	12BA6				
HF94	12AU6		CV1961		
PF83					
PF86					
UF5					
UF6					
UF9					
UF11					
UF14					
UF15					
UF21					
UF41	12AC5				
UF42					
UF43					
UF80					
UF85	19BY7				
UF89					
VF14					
	6AS6		CV2522 CV2884		
	6BJ6				5960-00-188-6589

PENTHODES (continued)					
European type	USA type	3-digit CV	4 digit CV	other	NATO STOCK NUMBER
	6BJ6A				5960-00-577-6186
	6BZ6				
	6CB6A				5960-00-822-9222
	6CB6 low noise				5960-00-103-4019
	6CG6				
	6DK6				
	6DT6				
	6EH7				
	6F33		CV2209 CV4064		5960-99-000-4064
	6GM6				
	6KT6				
	12BY7				
			CV4029	5902	5960-00-248-3090
		CV378			5960-99-000-0378
				5689	5960-00-237-0077
				9003	5960-00-114-3839

POWER PENTHODES					
European type	USA type	3-digit CV	4 digit CV	other	NATO STOCK NUMBER
AL1		CV159			
AL4					
AL5					
CL4			CV2875		
DL11					
DL21					
DL35	1C5				
DL41					
DL91	1S4				
DL92	3S4	CV820	CV2370		
DL93	3A4	CV807			
DL94	3V4				
DL95	3Q4	CV818			
DL96	3C4				
DL97					
DL651					
DL907					
EL2			CV1429		
EL3					
EL5					
EL6					
EL11					5960-17-605-1627
EL12					
EL32		CV996	CV1052	VT52	
EL33			CV2938		
EL34	6AC7		CV1741		5960-12-121-4661 5960-00-228-0035 5960-00-262-0965 5960-00-617-3639
EL36	6CM5		CV2940		5960-99-000-2940
EL37					
EL38	6CN6	CV450			5960-99-000-0450
EL41	6CK6		CV3889		5960-17-007-8437
EL42			CV3890		
EL60					5960-17-005-9523
EL81	6CJ6		CV2721		5960-99-000-2721
EL82	6DY6				
EL83	6CK6		CV2726		5960-17-007-6070 5960-99-000-2726
EL84	6BQ5		CV2975		5960-00-852-0235 5960-99-000-2975
EL86	6CW5		CV2179 CV4062 CV5094		5960-17-015-2100 5960-99-000-4062
EL88					
EL89					
EL90	6AQ5		CV1862 CV2883 CV4019		5960-00-134-6073 5960-00-669-6861

**POWER PENTHODES (continued)**

<b>European type</b>	<b>USA type</b>	<b>3-digit CV</b>	<b>4 digit CV</b>	<b>other</b>	<b>NATO STOCK NUMBER</b>
EL91	6AM5 6AN5 6AK6 7D9	CV136		M80082	5960-00-901-3224 5960-99-000-0136 5960-99-000-4063
EL95	6DL5				5960-99-037-3660
EL156					
EL500	6GB5				
EL503					
EL505	6KG6				
EL519					
EL803					
EL804					
EL821	6CH6				
HL94	30A5				
PL36	25E5				
PL81	21A6				
PL82	16A5				
PL83	15A6				
PL84	15CW5				
PL85					
PL500					
PL504					
PL519					
PL805					
UL2					
UL11					
UL12					
UL41	45A5		CV1977		
UL44					
UL84					
	6AR5				
	6BH6				5960-00-188-3602
	6BN6				
	6CE5				
	6CL6				
	6EH5				
	6GC5				
	6GK5				
	6KD6				
	50FK5				
	6CY5				
	6ER5				
	6FV6				
	6DW5				
	12AB5				
	12AQ5				
	35B5				
	50B5				

HEXODES					
European type	USA type	3-digit CV	4 digit CV	other	NATO STOCK NUMBER
CH1					
EH2					
AK1					
AK2					
CK1					
CK3					
DK21					
DK40					
DK91	1R5	CV782			
DK92	1AC6				
DK96	1AB6				
EK2			CV1426		
EK32			CV1057 CV1570	VR57	
EK90	6BE6		CV4012		5960-99-000-4012
HK90			CV3516		
KK2					
	6BA7		CV2527		
	6BF5				
	6BK7				
	6EH8				

COMBINATION TUBES					
European type	USA type	3-digit CV	4 digit CV	other	NATO STOCK NUMBER
DAC21			CV2887		
DAC32					
EABC80					
EAC91					
ABC1					
EBC3					
EBC11					
EBC33					
EBC41			CV3882		
EBC81	6BD7A				
EBC90	6AT6	CV452			
EBC91	6AV6		CV2525 CV2526		
HBC91	12AV6				
PABC80					
	6AQ6				
	6BF6				
	6BK6				
	6BN8				
	6T8				
DAF11					
DAF40					
DAF41					
DAF91	1S5				
DAF96	1AH5				
EA41					
EA42	6CT7		CV3883		
EBF2			CV2925		
EBF11					
EBF15					
EBF32		CV501			
EBF80	6N8				
EBF83					
EBF89					
UAF41					
UAF42					
UBF11					
UBF80	17N8				
UBF89					
DCF11					
ECF1					
ECF80	6BL8				
ECF82	6U8				
ECF83					
ECF86					
PCF80	9A8				
PCF82	9U8				
PCF86					

**COMBINATION TUBES (continued)**

<b>European type</b>	<b>USA type</b>	<b>3-digit CV</b>	<b>4 digit CV</b>	<b>other</b>	<b>NATO STOCK NUMBER</b>
PCF200	8X9				
PCF802	9JW8				
	6AN8				
	6AZ8				
	6BE8				
	6BH8				
	6BJ8				
	6BR8				
	6CX8				
	6EA8				
	6EB8				
	6EK8				
	6EU8				
	6GN8				
	6GJ8				
	6KD8				
	6KR8				
	6KT8				
	6KZ8				
	6LJ8				
	6LY8				
	6MU8				
	6X8				
ABL1					
EBL1					
EBL21					
EBL31					
EBL71					
UBL1					
UBL3					
UBL21					
UBL71					
ECL11					
ECL80	6AB8				
ECL81					
ECL82	6BM8				
ECL84					
ECL85					
ECL86					
ECL113					
PCL81					
PCL82	16A8				
PCL84	15DQ8				
PCL85					
PCL86					
UCL11					
UCL81					
UCL82					
PFL200	16Y9				
ACH1					



COMBINATION TUBES (continued)					
European type	USA type	3-digit CV	4 digit CV	other	NATO STOCK NUMBER
DCH11					
ECH3			CV2929		
ECH4					
ECH11					
ECH21					
ECH35	ARTH2		CV1347 CV1581		
ECH41					
ECH42	6C10		CV3888		
ECH71					
ECH81	6AJ8		CV2128		
ECH83	6DS8				
ECH84	6JX8				
HCH81	12AJ8				
KCH1					
UCH4					
UCH5					
UCH11					
UCH21					
UCH41					
UCH42	14K7				
UCH71					
UCH81	19D8				
VCH11					
ELL80					
PLL80					