

## RECEIVING TUBES AND FOREIGN EQUIVALENTS

Data collected from the Russian book; Domestic receiving tubes and their foreign counterparts by: B. Каинельсон, А. С. Ларионов (V. Kainel'son, A. S. Larionov 1981)

<b>Tube types (russian):</b> (In <u>Cyrillic</u> alphabet)	<b>Tube Types:</b> (In Latin alphabet)	<b>Basic counterparts (equivalents)</b>	<b>Some European and American analogues</b>
<b>Double Diodes:</b>			
6Х2П, 6Х2П-ЕВ	6H2P, 6H2P-EV	EAA91, 6B32	EB91, 6D2, 6AL5
6Х6С, 6Х6С-ЕР	6H6S, 6H6S-ER		6H6, VT90
<b>Damping Diodes:</b>			
6Д14П	6D14P		6B3, EY81, 6AF3
6Д20П	6D20P	EY88	6AL3, 6V3A
6Д22С	6D22S		EY500
6Ц10П	6C10P		EY83
<b>Half-Wave Vacuum Rectifier</b>			
1Ц1С	1C1S	DY30	1B3GT
1Ц21П	1C21P	DY86, DY87	1S2
2Ц2С	2C2S		2X2 (A)
3Ц16С	3C16S		3A3, 3B2, 3A3A
3Ц12С	3C12S		GY501
<b>Full wave rectifiers</b>			
5Ц3С	5C3S		5U4G, 5U4GB, 5AS4A
5Ц4С	5C4S		5Z4G, 5Z4
6Ц4П, 6Ц4П -ЕВ	6C4P, 6C4P-EV		6X4, 6Z31, EZ90
6Ц5С	6C5S	EZ35	6X5GT
<b>Triode:</b>			
6С1П, 6С1П -В	6S1P, 6S1P-V		9002
6С2П	6S2P		6J4, EC98
6С2С	6S2S		6J5GT
6С20С	6S20S		6BK4
6С51Н, 6С51Н-В	6S51N, 6S52N-V		7586
6С52Н, 6С52Н-В	6S52N, 6S52N-V		7895
6С53Н, 6С53Н-В	6S53N, 6S53N-V		EC-1010
<b>Double triodes:</b>			
6Н2П, 6Н2П-ЕВ, 6Н2П-ЕР	6N2P, 6N2P-EV, 6N2P-ER	6CC41	
6Н3П	6N3P	6CC42	2C51, 396A, 6385
6Н3П-Е, 6Н3П-И, 6Н3П-ДР	6N3P-E, 6N3P-I, 6N3P-DR		5670
6Н7С	6N7S		6N7GT
6Н8С	6N8S		6SN7GT
6Н9С	6N9S		6SL7GT
6Н13С	6N13S		6080, 7802
6Н14П	6N14P	ECC84	6CW7, 6L16
6Н15П	6N15P	ECC91, 6CC31	6J6A
6Н23П, 6Н23П-ЕВ	6N23P, 6N23P-EV	ECC88	6DJ8
6Н24П	6N24P	ECC89	6FC7
6Н27П	6N27P	ECC86	6GM8

<b>Tetrode:</b>			
6Э12Н, 6Э12Н-В	6Е12Н, 6Е12Н-В		7587
<b>RF Pentode:</b>			
6Ж1Б, 6Ж1Б-В, 6Ж1Б-ВР	6Z1B, 6Z1B-V, 6Z1B-VR		5702
6Ж1П	6Z1P	EF95, 6F32	6AK5
6Ж1П-ЕВ, 6Ж1П-ЕР	6Z1P-EV, 6Z1P-ER		6AK5W, 5654
6Ж2П, 6Ж2П-ЕВ	6Z2P, 6Z2P-EV		6AS6, 5725
6Ж3П, 6Ж3П-Е	6Z3N, 6Z3N-E	EF96	6AG5
6Ж4, 6Ж4-В	6Z4, 6Z4-V	6F10	6AC7
6Ж4П	6Z4P	EF94	6AU6A, 7543
6Ж5П	6Z5P	6F36	6AH6
6Ж9П, 6Ж9П-Е	6Z9P, 6Z9P-E	E180F	6688A
6Ж11П, 6Ж11П-Е	6Z11P, 6Z11P-E		E280F
6Ж32П	6Z32P	EF86	6267
6Ж40П	6Z40P	EF98	6ET6
6Ж51П	6Z51P	EF184	6EJ7
<b>Pentode:</b>			
1К2П	1K2P	1F34	
6К1П	6K1P		9003
6К4П	6K4P	EF93, 6F31	6BA6
6К4П-ЕВ, 6К4П-ЕР	6K4P-EV, 6K4P-ER		6BA6W, 5376
6К8П	6K8P	EF97	6ES6
6К13П	6K13P	EF183	6EH7
<b>Pentode/tetrode:</b>			
6П1П, 6П1П-ЕВ	6P1P, 6P1P-EV		6AQ5, EL90
6П3С, 6П3С-Е	6P3S, 6P3S-E		6L6GB
6П6С	6P6S		6V6GT
6П9	6P9	6L10	6AG7
6П14П, 6П14П-В	6P14P, 6P14P-V	EL84	6BQ5, N709
6П18П	6P18P	EL82	6DY5, N329
6П20С	6P20S		6CB5
6П27С	6P27S	EL34	6CA7
6П31С	6P31S	EL36	6CM5
6П33П	6P33P	EL86	6CW5
6П36С, 6П36С-В	6P36S, 6P36S-V	EL500	6GB5
<b>Dual control coverter tubes:</b>			
1А2П	1A2P	1H34	
6А2П	6A2P	6H31	6BE6, 6K90
6А3П	6A3P		6BN6
<b>Triode-pentode:</b>			
6Ф1П	6F1P	ECF80	6BL8
6Ф3П	6F3P	ECL82	6BM8
6Ф4П	6F4P	ECL84	6DX8, 6DQ8
6Ф5П	6F5P	ECL85	6GV6
9Ф8П	9F8P	PCF80	9A8
15Ф4П	15F4P	PCL84	15DX8
16Ф3П	16F3P	PCL82	16A8, 30PL12
18Ф5П	18F5P	PCL85	18GV8

<b>Triode-Heptode:</b>			
6И1П	6I1P	ECH81	6AJ8, 6C12
<b>Indicator:</b>			
1E4A-B	1E4A-V		DM70
6E1П	6E1P	EM80	6BR5

### Foreign tubes and possible substitutes

*(Not always pin compatible, and may need different heater.)*

TUBE	Possible substitute	Western substitute
EC86	6S3P, 6S4P	6CM4
EC88	6S4P	6DL4
E80CC	6N1P, 6N3P	
ECC82	6N1P, 6N5P	12AU7
ECC83	6N2P	ECC803, 6L13, 12AX7
ECC85	6N3P	6L12, 6AQ8
ECC189	6N23P	6ES8
ECC802S	6N1P-EV, 6N5P	ECC82, 12AU7WA, 6067
ECC803S	6N2P-EV	ECC83, 12AX7WA, 6057
ECC960	6N3P, 6N15P	E90CC
ECF82	6F1P (6Φ1П)	6U8
ECH84	6I3P (6И3П)	6JX8
ECH200	6I3P (6И3П)	
ECL86	6F5P (6Φ5П)	6GW8
EF80	6Z4P (6Ж4П), 6Z5P	EF800, 6BX6
EF89	6K4P(6K4П)	
EF184	6Z51P (6Ж51П)	6EJ7, 6F30
EF800	6Z4P (6Ж4П), 6Z5P	EF80
EL83	6P15P (6П15П)	6CK6, 6CN6
E84L	6P14P (6П14П)	EL84
EL803S	6P15P (6П15П)	EL83
EY86	3C18P (3Ц18П)	6S2
EY87	3C18P (3Ц18П)	
PL84	6P14P (6П14П)	
EL500	6P36C (6П36C)	

# 1959 Standard Tube Coding

Letter in <brackets>: Greek-to-Latin transcription

Heater Voltage (rounded to integer), omitted for gaseous regulators

↑  
**6C45Π-E**  
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## Device Type

A: <A>: Dual-Control Converter Tubes  
 B: <B>: Diode-Pentode  
 B: <V>: Secondary Emission Tubes  
 Γ: <G>: Diode-Triode  
 Д: <D>: Single Diode  
 E: <E>: Indicator (Magic Eye)  
 Ж: <J>: RF Pentode, sharp cutoff  
 И: <I>: Triode+Heptode  
 K: <K>: Pentode, extended cutoff  
 H: <N>: Dual Triode  
 P: <R>: Dual Tetrode  
 Π: <P>: Audio Pentode / Tetrode  
 C: <S>: Single Triode  
 Φ: <F>: Triode-Pentode  
 X: <H>: Dual signal diode  
 Ц: <Z>: Rectifier diode  
 Э: <EE>: RF Tetrodes  
 СГ: <SG>: Gaseous Regulator

## Package

A: <A>: submini, 6-8 mm diameter  
 B: <B>: submini, 10.2 mm diameter  
 Д: <D>: Disk Seal  
 Ж: <J>: Glass Acorn  
 K: <K>: Ceramic  
 Л: <L>: Locking base  
 H: <N>: Nuvistor  
 Π: <P> Glass, 19-22.5 mm diameter (9 or 7 pin)  
 P: <R>: Sub-Submini 5mm diameter  
 C: <S>: Glass larger than 22.5 mm diameter  
 (omitted) for octal metal types

## Improved versions

B: <V>: Mechanically ruggedized  
 E: <E>: Extended lifetime (3000-10000 hour rating)  
 K: <K>: Vibration Resistant  
 И: <I>: Pulse Mode Rated  
 (omitted) base versions