

PHILCO TUBES

Characteristics --- Interchangeability --- Base Pin Diagrams

PHILCO TUBES Improve the Performance of Any Radio

Type Number	Similar To	DESCRIPTION	Base Connection	Volts Filament	Filament Amps.	Filament Type	Plate Volts	Screen Volts	Control Grid Volts	Plate Current (Ma)	Screen Current (Ma)	Amplification Factor	Mutual Conductance in Micromhos	Power Output in Milliwatts	Load Resistance in Ohms
0Z4	0Z3	Full Wave Gaseous Rectifier*	4R			Cold	350			75					
0Z4G		Full Wave Gaseous Rectifier	4R			Cold	350			75					
01A		Triode Detector-Amplifier	4D	5.0	0.250	F(T)	90		-4.5	2.5		8	725		
							135		-9.0	3.0		8	800		
1A1		Current Regulator	4A	0.7	0.500	F									
1A4P		Super Control R.F. Pentode	4M	2.0	0.060	F(O)	180	67.5	-3.0	2.3	0.8	750	750		
1A4T	1A4	Super Control R.F. Tetrode †	4K	2.0	0.060	F(O)	180	67.5	-3.0	2.3	0.7	720	750		
1A5GT/G	1A5G	Power Output Pentode	6X	1.4	0.050	F(O)	85	85	-4.5	3.5	0.7	800	100	25000	
1A6	1C6-1D7G	Pentagrid Converter	6L	2.0	0.060	F(O)	135	67.5	-3.0	1.2	2.5		275		
							180	67.5	-3.0	1.3	2.4		300		
1A7G		Pentagrid Converter	7Z	1.40	.050	F(O)	90	90	0	.60	.65	125			
1A7GT	1A7G	Pentagrid Converter	7Z	1.4	0.050	F(O)	90	45	0	0.55	0.60	250			
1B4P		Screen Grid R.F. Pentode	4M	2.0	0.060	F(O)	180	67.5	-3.0	1.7	0.6	1000	650		
1B5-255	1H6G	Duplex Diode Triode	6M	2.0	0.060	F(O)	135		-3.0	0.8		20	575		
1C1		Current Regulator	4A	0.7	0.740	F									
1C5GT/G	1C5G	Power Output Pentode	6X	1.4	0.100	F(O)	90	90	-9.0	6.0	1.4	180	1550	240	8000
1C6	1A6-1C7G	Pentagrid Converter	6L	2.0	0.120	F(O)	135	67.5	-3.0	1.3	2.0		300		
							180	67.5	-3.0	1.5	2.0		325		
1C7G	1C6	Pentagrid Converter °	7Z	2.0	0.120	F(O)	135	67.5	-3.0	1.3	2.0		300		
							180	67.5	-3.0	1.5	2.0		325		
1D1		Current Regulator	4A	1	.240	F									
1D5GP		Super Control R.F. Pentode *	5Y	2.0	0.060	F(O)	180	67.5	-3.0	2.3	0.8	750	750		
1D5GT	1A4	Super Control R.F. Tetrode °	5R	2.0	0.060	F(O)	180	67.5	-3.0	2.3	0.7	720	750		
1D7G	1A6	Pentagrid Converter °	7Z	2.0	0.060	F(O)	135	67.5	-3.0	1.3	2.4		300		
							180	67.5	-3.0	1.3	2.4		300		
1D8GT		Diode Triode Power Amplifier Pentode	8AJ	1.4	0.100	F(O)	90	90	-9.0	5.0	1.0	25	925	200	12000
							90	(Triode)	0	1.1			575		
1E4G		Triode Voltage Amplifier	5S	1.4	0.050	F(O)	90	135	-3.0	1.5		14	825		
1E5GP		Screen Grid R.F. Pentode °	5Y	2.0	0.060	F(O)	180	67.5	-3.0	1.7	0.4	1000	650		
1E7G	2-1F4	Double Pentode Power Amplifier °	8C	2.0	0.240	F(O)	135	135	-4.5	7.5	2.1	350	1600		
1F1		Current Regulator	4A	0.7	0.720	F									
1F4	950-1F5G	Output Pentode °	5K	2.0	0.120	F(O)	135	135	-4.5	8.0	2.6	360	1700	340	16000
1F5G	950-1F4	Output Pentode °	6X	2.0	0.120	F(O)	135	135	-4.5	8.0	2.6	360	1700	340	16000
1F6		Duplex Diode Pentode	6W	2.0	0.060	F(O)	180	67.5	-1.5	2.0	0.6	650	650		
1F7G	1F6	Duplex Diode Pentode °	7AD	2.0	0.060	F(O)	180	67.5	-1.5	2.0	0.6	650	650		
1F7GV	1F6	Duplex Diode Pentode °	7AF	2.0	0.060	F(O)	180	67.5	-1.5	2.0	0.6	650	650		
1G4GT/G	1G4G	Triode Voltage Amplifier	5S	1.4	0.050	F(O)	90	90	-6.0	2.3		8.8	825		
1G5G	1F4	Output Pentode °	6X	2.0	0.120	F(O)	90	90	-6.0	8.5	2.7	200	1500	300	8500

PHILCO TUBES (CONTINUED)

Type Number	Similar To	DESCRIPTION	Base Connection	Filament Volts	Filament Amps	Filament Type	Plate Volts	Screen Volts	Control Grid Volts	Plate Current (mA)	Screen Current (mA)	Amplification Factor	Mutual Conductance in Micromhos	Power in Output in Milliwatts	Load Resistance in Ohms
1G6GT/G	1G6G	Class B Twin Amplifier	7AB	1.4	0.100	F(O)	90		0	1.4				675(2)	12000(2)
1H4G	30	Triode Detector-Amplifier °	5S	2.0	0.060	F(O)	180		-13.5	3.1		9.3	900		
1H5G		Diode-Triode	5Z	1.4	.050	F(O)	90		0	.15		65	275		
1H5GT	1H5G	Diode-Triode	5Z	1.4	0.050	F(O)	90		0	0.15		65	275		
1H6G	1B5	Duplex Diode Triode °	7AA	2.0	0.060	F(O)	135		-3.0	0.8		20	575		
1J6G	19	Class B Twin Amplifier °	7AB	2.0	0.240	F(O)	135		0	10.0				2100(2)	10000(2)
1LA4		Power Output Pentode	5AD	1.4	0.050	F(O)	90		-4.5	4.0	0.8		850	115	25000
1LA6		Frequency Converter	7AK	1.4	0.050	F(O)	90		0	0.55	0.60		250		
1LB4		Power Output Pentode	5AD	1.4	0.050	F(O)	90		-9.0	5.0	1.0		925	200	12000
1LC6		Pentagrid Converter	7AK	1.4	0.050	F(O)	90		0	0.75	0.70		275		
1LD5		Diode-Audio Pentode	6AX	1.4	0.050	F(O)	90		0	0.60	0.10		575		
1LE3		General Purpose Triode	4AA	1.4	0.050	F(O)	90		-3.0	1.40		14.5	760		
1LH4		Diode Triode	5AG	1.4	0.050	F(O)	90		0	0.15		65	275		
1LN5		Pentode Voltage Amplifier	7AD	1.4	0.050	F(O)	90		0	1.6	0.35	880	800		
1NSG		Radio Frequency Pentode	5Y	1.40	0.050	F(O)	90		0	1.2	.3	1125	750		
1N5GT	1N5G	R.F. Pentode Amplifier	5Y	1.4	0.050	F(O)	90		0	1.2	0.3		750		
1N6G		Diode-Power Output Pentode	7AM	1.4	0.050	F(O)	90		-4.5	3.1	0.6		800	100	25000
1P5G	1D5GP	R.F. Pentode Amplifier	5Y	1.4	0.050	F(O)	90		0	2.3	0.7	640	800		
1Q5GT/G	1Q5G	Beam Power Output Amplifier	6AF	1.4	0.100	F(O)	90		-4.5	9.5	1.6		21000	270	8000
1RS		Pentagrid Converter	7AT	1.4	0.050	F(O)	90		0	0.8	1.8		250		
1S4		Power Amplifier Pentode	7AV	1.4	0.100	F(O)	45		0	3.8	0.8		1250	65	8000
1S5		Diode-Pentode	6AU	1.4	0.050	F(O)	45		-4.5	3.8	0.8		525		
1T4		Super Control R.F. Amplifier	6AR	1.4	0.050	F(O)	90		0	1.2	0.3		750		
1T5GT		Beam Power Output Amplifier	6X	1.4	0.060	F(O)	90		0	2.0	0.65		1150	170	14000
1V	6Z3	Half Wave Rectifier	4G	6.3	0.300	C	350								
1Y1		Current Regulator	4A	0.7	0.540	F									
1Z1		Current Regulator	4A	0.7	0.900	F									
2		Ballast Tube	4A	9.0	0.300	F									
2A3		Power Amplifier Triode	4D	2.5	2.500	F(O)	250 300		-45 -62	60 40		4.2	5250 15000	3500 3000	
2A4G		Thyratron Tube	5S	2.50	2.500	F(O)	200			100					
2A5		Power Amplifier Pentode	6B	2.5	1.750	C	250		-16.5	34	6.5	220	2200	3000	7000
2A6		Duplex Diode Triode	6G	2.5	0.800	C	250		-2.0	0.8		100	1100		100000
2A7		Pentagrid Converter	7C	2.5	0.800	C	250		-3.0	3.5	2.2		520		
2B7		Duplex Diode Pentode	7D	2.5	0.800	C	250		-1.5	1.3	2.5		350		
3A8GT		Diode-Triode-Pentode	8AS	2.8	0.050	F(O)	190		-3.0	9.0	2.3		1125		
3Q5GT/G	1Q5G	Beam Power Output Amplifier	7AP	1.4	0.100	F(O)	90		0	0.15	0.3		275		
354		Power Amplifier Pentode		2.8	0.050	F(O)	90		-4.5	9.5	1.6		2100	270	8000
4		Ballast Tube	4A	115.0	0.300	F	67.5		-4.5	7.5	1.0		1800	250	8000
5		Ballast Tube	4A	115.0	0.460	F	67.5		-7.0	7.2	1.5		1550	180	5000

PHILCO TUBES (CONTINUED)

Type Number	Similar To	DESCRIPTION	Base Connection	Elements	Triodes Amps.	Element Type	Plate Voits	Screen Voits	Control Grid Voits	Plate Current (mA)	Screen Current (mA)	Amplification Factor	Mutual Conductance in Micromhos	Power Output in Milliwatts	Lead Resistance in Ohms
5U4G		Full Wave Rectifier°	5T	5.0	2.000	F(O)	500			250					
5V4G		Full Wave Rectifier°	5L	5.0	2.000	C	400			200					
5W4G		Full Wave Rectifier°	5T	5.0	1.5	F(O)	400			90					
5W4GT/G		Full Wave Rectifier°	5Q	5.0	3.000	F(O)	500			250					
5Y3G		Full Wave Rectifier°	5T	5.0	2.000	F(O)	400			110					
5Y4G		Full Wave Rectifier°	5Q	5.0	2.000	F(O)	400			110					
5Z3		Full Wave Rectifier°	4C	5.0	3.000	F(O)	500			250					
5Z4		Full Wave Rectifier°	5L	5.0	2.000	C	400			125					
6		Ballast Tube	4A	1.0	0.695	F									
6A3		Power Amplifier Triode	4D	6.3	1.000	F(O)	250	Push-Pull	-45	60		4.2	5250	3500	2500
6A4		Power Amplifier Pentode	5B	6.3	0.300	F(O)	180	100	-62	40				15000	3000
6A5G	6A3	Power Amplifier Triode°	6T	6.3	1.000	C	250	180	-12.0	22	3.9	100	2200	1400	8000
6A6		Class B Twin Amplifier	7B	6.3	0.800	C	294	Class A	-6.5	9	1.6	100	1200	310	11000
6A7		Pentagrid Converter	7C	6.3	0.300	C	300	Class B	-4.2	60		35	3200	3750	2500
6A8	6A7	Pentagrid Converter°	8A	6.3	0.300	C	250	100	-6.0	7				10006	10000(2)
6A8G	6A7	Pentagrid Converter°	8A	6.3	0.300	C	250	100	-3.0	3.5	2.2				
6A8GT	6A8G	Pentagrid Converter	8A	6.3	0.300	C	250	100	-1.5	1.3	2.5				
6A8SG		Dynamic Coupled Amplifier	6Q	6.3	0.400	C	250	50	-3.0	3.3	3.2				
6A9SG		Triode Voltage Amplifier	6Q	6.3	0.300	C	180	50	-3.0	3.3	3.2				
6B4G	6A3	Power Amplifier Triode°	5S	6.3	1.000	F(O)	250	100	-1.5	1.2	1.5				
6B5		Power Amplifier Direct Coupled	6A5	6.3	0.800	C	300	Input	-3	3.3	3.2				
6B7		Duplex Diode Pentode	7D	6.3	0.300	C	300	Output	-13	32		125	3400	3700	7000
6B8		Duplex Diode Pentode°	8E	6.3	0.300	C	250	175	-45.0	60		4.2	5250	3500	2500
6B8G		Duplex Diode Pentode°	8E	6.3	0.300	C	250	100	0	8		58	2400	4000	7000
6C5	76	Triode Detector-Amplifier°	6Q	6.3	0.300	C	250	100	-3.0	9.0	2.3	730	1125		
6C5G	76	Triode Detector-Amplifier°	6Q	6.3	0.300	C	250	100	-3.0	5.8	1.7	285	950		
6C6	77	Triple Grid Detector-Amplifier	6F	6.3	0.300	C	250	100	-3.0	10.0	2.3	800	1325		
6C6G		Double Triode°	8G	6.3	0.300	C	250	100	-3.0	6.0	1.5	800	1000		
6D6	78	Super Control R.F. Amplifier	6F	6.3	0.150	C	135	67.5	-8.0	8		20	2000		
6D8G	6A7	Pentagrid Converter°	8A	6.3	0.300	C	250	100	-8.0	8		20	2000		
6E5		Electron Ray Tuning Indicator	6R	6.3	0.300	C	250	100	-3.0	2	0.5	1500+	1225		
6F5		Triode-High Mu°	5M	6.3	0.300	C	250	100	-3.0	2	0.5	1185	1185		
6F5G	6F5	Triode-High Mu°	5M	6.3	0.300	C	250	100	-4.5	3.1		38	1450		
6F5GT	6F5G	Triode-High Mu°	5M	6.3	0.300	C	250	100	-3.0	8.0			325		
6F6	42	Power Amplifier Pentode°	7S	6.3	0.700	C	250	250	0 to -8						
6F6G	42	Power Amplifier Pentode°	7S	6.3	0.700	C	250	250	-2.0	0.9		100	1500		

PHILCO TUBES (CONTINUED)

Type Number	Similar To	DESCRIPTION	Base Connection	Filament	Filament Amps.	Filament Type	Plate Voltage	Screen Voltage	Control Grid Voltage	Plate Current (mA)	Screen (mA)	Amplification Factor	Mutual Conductance Microhms	Output in Milliwatts	Load Resistance in Ohms
6F7		Triode-Pentode	7E	6.3	0.300 C	C	100 (Triode) 250	100	-3.0	3.5	8	450			
6F8G		Double Triode	8G	6.3	0.600 C	C	250	250	-3.0	6.5	1.5	900	1100		
6G5/6V5		Electron Ray Tuning Indicator Special	6R	6.3	0.300 C	C	250	250	0 to -22	9	20	2600			
6G6G		Power Output Pentode	7S	6.3	0.150 C	C	180	180	-9	15	400	2300	1100	10000	
6H6		Duplex Diode	7Q	6.3	0.300 C	C	100	100	2	2					
6H6G		Duplex Diode	7Q	6.3	0.300 C	C	100	100	2	2					
6H6GT		Duplex Diode	7Q	6.3	0.300 C	C	100	100	2	2					
6J5GT/G		General Purpose Triode	6Q	6.3	0.300 C	C	250	250	2.0	2.0					
6J7	6C6-77	Triode Grid Detector-Amplifier	7R	6.3	0.300 C	C	250	100	-8	9.0	20	2600			
6J7G	6C6-77	Triode Grid Detector-Amplifier	7R	6.3	0.300 C	C	250	100	-3.0	2	0.5	1500+	1225		
6J7GT	6J7G	Triode Grid Detector-Amplifier	7R	6.3	0.300 C	C	250	100	-3.0	2	0.5	1185	1185		
6J8G		Triode-Heptode Converter	8H	6.3	0.300 C	C	Tri. 250 Hex. 250	100	-3	1.3	2.9	290	1400		
6K5G	6F5	High Mu Triode	5U	6.3	0.300 C	C	250	250	-3.0	1.1	70	1400			
6K5GT	6K5G	Triode High Mu	5U	6.3	0.300 C	C	250	250	-3	1.1	70	1400			
6K6G	4I	Power Amplifier Pentode	7S	6.3	0.400 C	C	250	250	-18.0	32.0	5.5	150	2200	3400	7600
6K6GT	6K6G	Power Amplifier Pentode	7S	6.3	0.400 C	C	250	250	-18	32	5.5	150	2200	3400	7600
6K7	6D6-78	Super Control R.F. Amplifier	7R	6.3	0.300 C	C	250	100	-3.0	7.0	1.7	1160	1450		
6K7G	6D6-78	Super Control R.F. Amplifier	7R	6.3	0.300 C	C	250	90	-3.0	5.4	1.3	400	1275		
6K7GT	6K7G	Super Control R.F. Amplifier	7R	6.3	0.300 C	C	250	90	-3.0	7.0	1.7	1160	1450		
6K8		Triode-Hexode Converter	7R	6.3	0.300 C	C	250	125	-3	10.5	2.6	990	1650		
6K8G	6K8	Triode-Hexode Converter	8K	6.3	0.300 C	C	Tri. 100 Hex. 250	100	-3.0	2.5	6.0	300	[Triode Grid Resistor 50000 Ohms]		
6K8GT	6K8G	Triode-Hexode Converter	8K	6.3	0.300 C	C	Tri. 100 Hex. 250	100	-3.0	2.5	6.0	300	[Triode Grid Resistor 50000 Ohms]		
6L5G		Triode Detector-Amplifier	6Q	6.3	0.150 C	C	135	135	-3	2.3	6.0	350			
6L6		Beam Power Amplifier	7AC	6.3	0.900 C	C	250	250	-5.0	3.5	17	1500			
6L6G	6L6	Beam Power Amplifier	7AC	6.3	0.900 C	C	250	250	-9.0	8.0	17	1900			
6L7		Pentagrid Mixer Amplifier	7T	6.3	0.300 C	C	250	250	-14.0	72	5.0	135	6000	6500	2500
6L7G	6L7	Pentagrid Mixer Amplifier	7T	6.3	0.300 C	C	250	250	-14.0	72	5.0	135	6000	6500	2500
6N5	6G5	Electron Ray Tuning Indicator	6R	6.3	0.150 C	C	250	100	-3.0	5.3	5.5	880	1100		
6N6G	6B5	Power Amplifier Direct Coupled	7W	6.3	0.800 C	C	135	135	0 to 12	0.5					
6N7	6A6	Class B Twin Amplifier	8B	6.3	0.800 C	C	250	250	0	33.0			2500	7000	
6N7G	6A6	Class B Twin Amplifier	8B	6.3	0.800 C	C	300	300	0	17.5			10000	10000	
6F5GT/G	76	General Purpose Triode	8B	6.3	0.300 C	C	250	250	0	17.5			10000	10000	
6P7G	6F7	Triode-Pentode	7U	6.3	0.300 C	C	100 (Triode) 250	100	-3.0	3.5	13.8	1450			
6Q7	75	Duplex Diode-Triode	7V	6.3	0.300 C	C	250	250	-3.0	1.1	70	1200			

PHILCO TUBES (CONTINUED)

Type Number	Similar To	DESCRIPTION	Base Connection	Flament Volts	Flament Amps	F Type	Plate Volts	Screen Volts	Control Grid Volts	Plate Current (mA)	Screen Current (mA)	Amplification Factor	Mutual Conductance in Micromhos	Power Output in Milliwatts	Load Resistance in Ohms
6Q7G	75	Duplex Diode-Triode °	7V	6.3	0.300	C	250		-3.0	1.1		70	1200		
6Q7GT	6Q7G	Duplex Diode-Triode	7V	6.3	0.300	C	250		-3.0	1.1		70	1200		
6R7		Duplex Diode-Triode °	7V	6.3	0.300	C	250		-9.0	9.5		16	1900	275	10000
6R7G		Duplex Diode-Triode °	7V	6.3	0.300	C	250		-9.0	9.5		16	1900	275	10000
6S7G	6D6	Super Control R.F. Amplifier °	7R	6.3	0.150	C	250	67.5 100	-3.0 -3.0	3.7 8.5	0.9 2.0	850 min. 1100 min.	1250 1750		
6SA7		Pentagrid Converter	8AD	6.3	0.300	C	250	100	-2.0	3.4	8.0	70	1325		
6SC7		Twin Triode Amplifier	8S	6.3	0.300	C	250		-2.0	2.0		100	1500		
6SF5	6F5	High Mu Triode	6AB	6.3	0.300	C	250		-2	0.9		100	1500		
6J7		Triple Grid Detector Amplifier	8N	6.3	.300	C	250	100	-3	3.0	0.8	2500	1650		
6SK7GT/G	6K7G	Super Control R. F. Amplifier	8N	6.3	0.300	C	250	100	-3	9.2	2.4	1600	2000		
6SQ7GT/G	6Q7G	Duplex Diode-Triode	8Q	6.3	0.300	C	250		-2.0	0.8		100	1100		
6T7G	75	Duplex Diode-Triode °	7V	6.3	0.150	C	250		-3	1.2		65	1050		
6U7G		Super Control R.F. Amplifier °	7R	6.3	0.300	C	250	100	-3	8.2	2.0	1280	1600	4250	5000
6V6GT/G	6V6G	Beam Power Amplifier	7AC	6.3	0.450	C	250	250	-12.5	47	6.5	8.3	1100	350	20000
6V7G	85	Duplex Diode-Triode °	7V	6.3	0.300	C	250	100	-20	8.0		1850	1725		
6W7G	6J7G	Triple Grid Detector-Amplifier	7R	6.3	0.150	C	250		-3	2.0	0.5				
6X5GT/G	84	Full Wave Rectifier	6S	6.3	0.600	C	350			75					
6Y6G		Power Amplifier Tetrode	7AC	6.3	1.250	C	135	135	-13.5	58	3		7000	3600	2000
6Y7G	79	Class B Twin Amplifier °	8B	6.3	0.600	C	250		0	10.5			8000	14000	
6Z7G		Class B Twin Amplifier	8B	6.3	0.300	C	180		0				4200	12000 [P.P.]	
6Z75G		Full Wave Rectifier	6S	6.3	0.300	C	350			35					
7A4		General Purpose Triode	5AC	7.0	0.320	C	250	125				20	2600	1900	2700
7A5		Power Output Pentode	6AA	7.0	0.750	C	150	R.M.S. Max.							
7A6		Duplex Diode	7AJ	7.0	.160	C	250	100	-9.0	37.5	3.2		6100	1900	2700
7A7		Super Control R.F. Amplifier	8V	7.0	0.160	C	250	100	-3.0	8.6	2.0	1600	2000		
7A8		Octode Converter	8U	7.0	0.160	C	250	100	-3.0	3.0	2.8		600	2200	3400
7B5		Pentode Power Amplifier	6AE	7.0	0.430	C	250	250	-18.0	32	5.5	150	2200	3400	7600
7B6		Duo Diode Triode	8W	7.0	0.320	C	250	100	-2.0	1.0		100	1100		
7B7		Super Control R.F. Amplifier	8X	7.0	0.160	C	250	100	-3.0	8.5	2.0	1200	1700		
7B8		Pentagrid Converter	8X	7.0	0.320	C	250	100	-3.0	3.5	2.7		550	500	5000
7C5		Tetrode Power Amplifier	6AA	7.0	0.480	C	250	250	-12.5	45	4.5	100	1000		
7C6		Duo Diode High Mu Triode	8W	7.0	0.160	C	250	100	-3	2.0	0.5		1300		
7C7	6W7G	Triple Grid Detector-Amplifier	8V	7.0	0.160	C	250	100	-9	9.5		16	1900		
7E6	6R7G	Duplex Diode-Medium Mu Triode	8W	7.0	0.320	C	250	100	-3.0	7.5	1.6		1300		
7E7		Duplex Diode Pentode	8AE	7.0	0.320	C	250	150	-2.0	2.3		70	1600		
7F7		Double Triode Amplifier	8AC	7.0	0.320	C	250	150	-2.5	9.0	2.5		3500		
7H7		Semi-Remote Cutoff Amplifier	8V	7.0	0.320	C	250	100	-3.0	1.4	2.8	14	3100	310	
7J7		Triode Hexode Converter	8AR	7.0	0.320	C	250 Tri. 150	100	-1.5	4.5	1.5		3100	3100	450
7L7		R.F. Pentode	8V	7.0	0.320	C	250	100	0	3.4	8.0		450	5800	
7Q7		Pentagrid Converter	8AL	7.0	0.320	C	250	100							
7V7		Amplifier Pentode	8V	6.3	0.450	C	300	150		9.6	3.9				
7Y4		Full Wave Rectifier	5AB	7.0	0.530	C	350		-6						

PHILCO TUBES (CONTINUED)

Type Number	Similar To	DESCRIPTION	Base Connection	Filament Volts	Filament Amps.	Filament Type	Plate Volts	Screen Volts	Control Grid Volts	Plate Current (mA)	Screen Current (mA)	Amplification Factor	Mutual Conductance in Micromhos	Power Milliwatts	Load Resistance in Ohms
7Z4		Full Wave Rectifier	5AB	6.3	0.900	C	325			100					
9		Ballast Tube	4A	50.0	0.300	F									
10		Power Amplifier Triode	4D	7.5	1.250	F(O)	425		-39.0	18		8	1600	1600	10200
12A		Triode Detector-Amplifier	4D	5.0	0.250	F(O)	180 90		-13.5 -4.5	7.7 5.0		8.5 8.5	1800 1575	1285 35	10650 5000
12A5		Power Amplifier Pentode	7F	6.3 12.6	0.600 0.300	C	180	180	-27.0	38	8	90	2300	2600	3800
12A7		Pentode and Half Wave Rectifier	7K	12.5	0.300	C	135 125	135	-13.5	9	2.5	100	975		
12A8G	6A8G	Pentagrid Converter	8A	12.5	0.150	C	250	100	-3.0	3.5	2.7		550		
12A8GT	6A8G	Pentagrid Converter	8A	12.5	0.150	C	250	100	-3.0	3.3	3.2		500		
12B8GT		Triode Pentode	8T	12.6	0.300	C	P90 150	90	-3.0	7.0	2.0	360	1800 2400		
12C8		Duo Diode Pentode	8E	12.6	0.150	C	250	125	-3.0	10.0	2.3	800	1375		
12F5GT	6F5G	High Mu Triode	5M	12.5	0.150	C	250	250	-2.0	0.9		100	1500		
12J5GT	6J5G	General Purpose Triode	6Q	12.6	0.150	C	250	250	-8	9.0		20	2600		
12J7GT	6J7G	Triple Grid Detector Amplifier	7R	12.5	0.150	C	250	100	-3.0	2.0	0.5	1500	1225		
12K7G	6K7G	Super Control R.F. Amplifier	7R	12.5	0.150	C	250	125	-3.0	10.5	2.6	990	1650		
12K7GT	6K7G	Super Control R.F. Amplifier	7R	12.5	0.150	C	250	100	-3.0	7.0	1.7	1160	1450		
12Q7G	6Q7G	Duplex Diode High Mu Triode	7V	12.5	0.150	C	250	250	-3.0	1.1		70	1200		
12Q7GT	6Q7G	Duo Diode High Mu Triode	7V	12.5	0.150	C	250	250	0	1.1		70	1200		
12SA7G1/G	6SA7	Pentagrid Converter	8AD	12.6	0.150	C	250	100	-2	3.4	8.0		450		
12SC7		Twin Triode Amplifier	8S	12.6	0.150	C	250	250	-2.0	2.0		70	1325		
12SF5GT/G	6F5G	High Mu Triode	6AB	12.6	0.150	C	250	250	-2.0	0.9		100	1500		
12SJ7		Triple Grid Detector-Amplifier	8N	12.6	0.150	C	250	100	-3.0	3.0	0.8	2500	1650		
12SK7GT/G	6K7G	Super Control R.F. Amplifier	8N	12.6	0.150	C	250	100	-3.0	9.2	2.4	1600	2000		
12SQ7GT/G	6Q7G	Duplex Diode High Mu Triode	8Q	12.6	0.150	C	250	250	-2.0	0.8		100	1100		
12SR7	6R7	Duplex Diode Triode	8Q	12.6	0.150	C	250	250	-9.0	9.5		16	1900		
12Z3		Half Wave Rectifier	4G	12.6	0.300	C	250	250		60					
14		Screen Grid R.F. Amplifier	5E	14.0	0.300	C	250	90	-3.0	4	1.5	525	1050		
15	32	Screen Grid R.F. Amplifier	5F	2.0	0.220	C	67.5	67.5	-1.5	1.8	0.3	450	710		
17		Triode General Purpose	5A	14.0	0.300	C	180	250	-13.5	5		9	1000		
18		Power Amplifier Pentode	6B	14.0	0.300	C	250	250	-16.5	34	7.5	185	2350	3400	7000
19	1J6G	Class B Twin Amplifier	6C	2.0	0.260	F(O)	135	250	6	10			2100(2)	10000(2)	
22		Screen Grid R.F. Amplifier	4K	3.3	0.132	F(O)	135	67.5	-1.5	3.7	1.3	160	500		
24A		Screen Grid R.F. Amplifier	5E	2.5	1.750	C	250	90	-3.0	4	1.7	630	1050		
25A6GT/G	25A6G	Power Amplifier Pentode	7S	25.0	0.300	C	180	135	-20	38	7.5	100	2500	2750	5000
25A7G		Pentode and Half Wave Rectifier	8F	25.0	0.300	C	100 125	100	-15	20.5 7.5	4.0	90	1800	770	4500
25A7GT	25A7G	Pentode and Half Wave Rectifier	8F	25.0	0.300	C	Pen. 100 Rec. 125	100	-15	20.5 7.5	4.0	90	1800	770	4500
25AC5G	6AC5G	Power Amplifier-Positive Grid	6Q	25.0	0.300	C	110		+15	45		58	3800	2000	2000
25B6G	43	Power Amplifier-Pentode	7S	25.0	0.300	C	95	95	-15	45	4.0	400	1750	2000	
25B8GT	12B8GT	Triode-Pentode	8T	25.0	0.150	C	T100 P100	100	-1 -3	0.6 7.6	2.0	370	1500	2000	

Type Number	Similar To	DESCRIPTION	Base Connection	Filament	Filament Amps.	Filament Type	Plate Voils	Screen Voils	Control Grid Voils	Plate Current (MA)	Screen Current (MA)	Amplification Factor	Mutual Con. Distance in Microns	Power in Milliwatts	Load Resistance in Ohms
25C6G		Beam Power Amplifier	7AC	25.0	0.300	C	200	135	-14.0	66	9.0	7100	6000	2600	2600
25L6		Beam Power Amplifier	7AC	25.0	0.300	C	110	110	-8	45	3.5	800	2200	2000	2000
25L6G		Beam Power Amplifier ^o	7AC	25.0	0.300	C	110	110	-8.0	45	3.5	8000	2200	2000	2000
25L6GT		Beam Power Amplifier	7AC	25.0	0.300	C	110	110	-7.5	49	4.0	8200	2200	2000	2000
25Y5		Voltage Doubling Rectifier	6E	25.0	0.300	C	125			100					
25Z5		Voltage Doubling Rectifier ^o	7Q	25.0	0.300	C	125			85					
25Z6		Voltage Doubling Rectifier ^o	7Q	25.0	0.300	C	125			85					
25Z6G		Voltage Doubling Rectifier	7Q	25.0	0.300	C	125			85					
25Z6GT		Voltage Doubling Rectifier	7Q	25.0	0.300	C	125			85					
26		Triode Amplifier	4D	1.5	1.050	F(O)	180		-14.5	6.2	8.3	1150			
27	56	Triode Detector-Amplifier	5A	2.5	1.750	C	250	175	-21.0	5.2	9.0	975			
30	1H4G	Triode Detector-Amplifier	4D	2.0	0.060	F(O)	180		-13.5	3.1	9.3	900			
31		Power Amplifier Triode	4D	2.0	0.130	F(O)	180		-10.0	12.3	3.8	1050	375	5700	
32	1B4	Screen Grid R.F. Amplifier	4K	2.0	0.060	F(O)	180	67.5	-3.0	1.7	0.4	780	650	1000	2600
		Rectifier	8F	32.5	0.300	C	125	90	-7.0	27	2.0	81	4800	1000	2600
32L7GT		Beam Power Amplifier	5K	2.0	0.260	F(O)	180	180	-18.0	22	5	90	1700	1400	6000
33		Power Amplifier Pentode	4M	2.0	0.060	F(O)	180	67.5	-3.0	2.8	1.0	620	620		
34	1A4	Super Control R.F. Amplifier	4M	2.0	0.060	F(O)	180	67.5	-3.0	2.8	1.0	620	620		
35-51		Super Control R.F. Amplifier	5E	2.5	1.750	C	250	90	-3.0	6.5	2.5	420	1050		
35A5		Power Amplifier Pentode	6AA	35.0	0.160	C	110	110	-7.5	35	2.8	5500	1400	2500	2500
35L6GT/G		Beam Power Amplifier	7AC	35.0	0.150	C	110	110	-7.5	40	3	80	5800	1500	2500
35Z3		Half Wave Rectifier	4Z	35.0	0.160	C	250			100					
35Z4GT		Half Wave Rectifier	5AA	35.0	0.150	C	250			100					
35Z6GT/G		Half Wave Rectifier	6AD	35.0	0.150	C	125			100					
36-36A		Screen Grid R.F. Amplifier	5E	6.3	0.300	C	250	90	-3.0	3.2	1.7	595	1080		
37-37A		Triode Detector-Amplifier	5A	6.3	0.300	C	250	250	-18.0	7.5	9.2	1100			
38-38A		Power Amplifier Pentode	5F	6.3	0.300	C	250	250	-25.0	22	3.8	120	1200	2500	10000
39/44		Super Control R.F. Amplifier	5F	6.3	0.300	C	250	90	-3.0	5.8	1.4	1050			
39A/44A		Triode Voltage Amplifier	4D	5.0	0.250	F(T)	180		-3.0	0.2	30	200			
40		Power Amplifier Pentode	6B	6.3	0.400	C	250	250	-18.0	32	5.5	150	2200	3400	7600
41	42	Power Amplifier Pentode	6B	6.3	0.700	C	250	250	-16.5	34	6.5	220	2200	3000	7000
42		Power Amplifier Pentode	6B	25.0	0.300	C	180	135	-20.0	40	8	96	2400	2750	5000
43		Power Amplifier Triode	4D	2.5	1.500	F(O)	250		-50.0	34	3.5	2175	1600	3900	3700
45		Power Amplifier Triode	4D	2.5	1.500	F(O)	325		-68	43	3.5	2370	3000	3700	
45A	45	Power Amplifier Triode	6AD	45.0	0.150	C	125			100					
45Z5GT		Half Wave Rectifier	5C	2.5	1.750	F(O)	(A)135 (B)400	250	-33	22	5.6	2350	1250	2000(2)	6490
46		Power Amplifier Dual Grid	5B	2.5	1.750	F(O)	250	250	0	6	6	150	2500	2700	7000
47		Power Amplifier Pentode	6A	30.0	0.400	C	125	96	-16.5	31	9.5	3900	2500	1500	1500
48		Power Amplifier Triode	5C	2.0	0.120	F(O)	(A)135 (B)180	96	-19.0	52	9.0	3800	2000	1500	1500
49		Power Amplifier Dual Grid	5C	2.0	0.120	F(O)	(A)135 (B)180	96	-20.0	6	2	1125	170	3500(2)	12000(2)
50		Power Amplifier Triode	4D	7.5	1.250	F(O)	450		-84	55	4	3.8	2100	4600	4350
50L6GT	6L6G	Beam Power Amplifier	7AC	50.0	0.150	C	110	110	-7.5	43	68	6800	1750	2000	2000
50Y6GT/G		Full Wave Rectifier	7Q	50.0	0.150	C	125			85					
53		Class B Twin Amplifier	7B	2.5	2.000	C	300	300	0	17.5	8.3	1100	1000(2)	10000(2)	20000
55		Duplex Diode Triode	6G	2.5	1.000	C	250		-20	8	13.8	1450			
56	27	Triode Detector-Amplifier	5A	2.5	1.000	C	250		-13.5	5					

PHILCO TUBES (CONTINUED)

Type Number	Similar To	DESCRIPTION	Base Connection	Filament Volts	Filament Amps	Filament Type	Plate Volts	Screen Volts	Control Grid Volts	Plate Current (mA)	Screen Current (mA)	Amplification Factor	Mutual Conductance in Micromhos	Power Output in Milliwatts	Load Resilience in Ohms	
57		Triple Grid Detector Amplifier	6F	2.5	1.000	C	250	100	-3.0	2	0.5	1500	1225			
58		Super Control R.F. Amplifier	6F	2.5	1.000	C	250	100	-3.0	8.2	2.0	1280	1600			
59		Power Amplifier Pentode	7A	2.5	2.000	C	250	250	-18.0	35	9	100	2500	3000	6000	
70L7GT		Rectifier-Beam Power Amplifier	8AA	70.0	0.150	C	R125 A110	110	-7.5	40	3		7500	1800	2000	
71A		Power Amplifier Triode	4D	5.0	0.250	F(O)	180		-40.5	20		3	1700	790	4800	
75		Duplex Diode Triode	6G	6.3	0.300	C	250	100	-2.0	0.8		100	1100			
76	37	Triode Detector-Amplifier	5A	6.3	0.300	C	250	100	-13.5	5		13.8	1450			
77	6C6	Triple Grid Detector-Amplifier	6F	6.3	0.300	C	250	100	-3.0	2.3	0.5	1500	1250			
78	6D6	Super Control R.F. Amplifier	6F	6.3	0.300	C	250	100	-3.0	7.0	1.7	1160	1450			
79		Class B Twin Amplifier	6H	6.3	0.600	C	250		0	10.5				8000(2)	14000(2)	
80		Full Wave Rectifier	4C	5.0	2.000	F(O)	400		110							
81		Half Wave Rectifier	4B	7.5	1.250	F(O)	700		85							
82		Full Wave Rectifier*	4C	2.5	3.000	F(O)	500		125							
83	5Z3	Full Wave Rectifier*	4C	5.0	3.000	F(O)	500		250							
83V	83-5Z3	Full Wave Rectifier	4AD	5.0	2.000	C	400		200							
84-6Z4	6Z4	Full Wave Rectifier	5D	6.3	0.500	C	350		75							
85		Duplex Diode Triode	6G	6.3	0.300	C	250	250	-20.0	8	8.3	1100	1800	3400	20000	
89		Power Amplifier Pentode	6F	6.3	0.400	C	250	250	-25.0	32	5.5	125	1800	3400	6750	
X99		Triode Detector-Amplifier	4D	3.3	0.063	F(O)	90		-4.5	2.5		6.6	425			
XXB		Twin Triode Amplifier	See Reg. Basis Connec- tion	2.8 ²³	.050	F	90		0	4.5		14.5	1300	Triode #1 } Series Triode #2 } Parallel Filament Each Triode		
			2.8 ²³	.050	F	90		0	3.2		4.5		14.5			1300
			1.4	0.10	F	90		-3	1.4		17	2600	Each			
XXD		Twin Triode Amplifier Oscillator	8AC	12.6	0.150	C	100	100	0	10.8		16	1900	Triode		
			12.6	0.150	C	250	250	-10	9.0		16	2100				
XXL		Triode Oscillator	5AC	6.3	0.300	C	100	100	0	10		25	3600			
			6.3	0.300	C	250	250	-8	8		20	2300				
117L7GT		Rectifier-Beam Power Amplifier	8AD	117.0	0.090	C	R105 A105	105	-5.5	45.0	4.0		4000	550	4000	
117Z6GT/G		Full Wave Rectifier	7AR	117.0	0.075	C	117		60							
1232	7G7	Triple Grid Amplifier	8V	6.3	0.450	C	250	100	-2	6	2	3600	~4500			
			4D	5.0	1.250	F(O)	250	250	-35.0	18	5	1500	1750			
183	483	Power Amplifier Triode	4D	5.0	1.250	F(O)	250	250	-40.0	25		3.2	1800	2000		
485	484	Triode Detector-Amplifier	5A	3.0	1.250	C	180		-9.0		9	12.5	1350			

A—Provided filament circuits will accommodate change in filament current.
 B—Mercury vapor rectifier.
 C—Types 1A4, 1B4G, 1D5GT, and 1E5GT are identical to previous types 1A4, 1B4, 1D5G, and 1E5G.
 D—Types 1A4, 1B4, 1D5G, and 1E5G are identical to previous types 1A4, 1B4, 1D5G, and 1E5G.
 E—The Suppressor grid terminal of socket to cathode terminal.
 F—Both grids returned to F—pin #8.
 Section #22 is recommended for the oscillator with grid leak returned properly to avoid oscillator starting difficulties.

NOTES
 Mica-type types, 57A5-58A5, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Type 76 may be used to replace 36-67A for greater sensitivity in most cases without circuit changes.

Type Filament
 F(O)—Oxide Coated Filament
 F(I)—Fluorinated Tungsten Filament
 C—Oxide Coated Cathode