

OBSOLETE AND SELDOM ENCOUNTERED TYPES

Type	Construction		Class	Use	Emitter			Plate Volts	Screen Volts	Neg. Grid Volts	Plate Current Ma.	Screen Current Ma.	Plate ① Resistance Ohms	Amp. ② Factor	Power Output Mw.	Suggested Replacement Type
	Style	Base Diag.			Type	Volts	Amp.									
01A	ST-14	4D	Triode	Det. Amp.	Fil.	5.0	0.25	90 135	..... .....	4.5 9.0	2.5 3.0	..... .....	11,000 10,000	8.0 8.0	..... .....
0Z3	.....	5N	Gas Rect.	F.W. Rect.	Cold K	.....	.....	350 V. RMS Per Plate, 75 Ma. Max. DC Output.								
1, KR1	ST-12	4G	Diode	H.W. Rect.	Cath.	6.3	0.30	350 V. RMS Plate, 50 Ma. DC Output.								1V
1A3	Min.	5AP	Diode	Det.	Cath.	1.4	0.15	Single Diode, Cathode Type for H.F. Use.								
1A4	ST-12	4K	Tetrode	R.F. Amp.	Fil.	2.0	0.06	90 180	67.5 67.5	3.0 3.0	2.2 2.3	0.9 0.8	600,000 1.0 Meg.	720 750	..... .....	1A4P, 1A4T
1B4	ST-12	4K	Tetrode	R.F. Amp.	Fil.	2.0	0.06	90 180	67.5 67.5	3.0 3.0	1.6 1.7	0.7 0.6	1.0 Meg.* 1.5 Meg.*	600 650	..... .....	1B4P 1B4T
1B4/951	ST-12	4K	Tetrode	R.F. Amp.	Fil.	2.0	0.06	Same as Type 1B4.								
1B5/25S	ST-12	6M	Duodi Tri.	Det. Amp.	Fil.	2.0	0.06	135	.....	3.0	0.8	.....	35,000	20	.....
1B7GT	GT	7Z	Heptode	Conv.	Fil.	1.4	0.10	90	45	0	1.5	1.3	350,000	350*	G2 = 90V. at 1.6 Ma.	
1D5G	ST-12	5R	Tetrode	R.F. Amp.	Fil.	2.0	0.06	180	67.5	3.0	2.3	0.7	600,000	750	.....	1D5GP, 1D5GT
1E5G	ST-12	5R	Tetrode	R.F. Amp.	Fil.	2.0	0.06	180	67.5	3.0	1.7	0.6	.....	650	.....	1E5GP, 1E5GT
1E5GT	ST-12	5R	Tetrode	R.F. Amp.	Fil.	2.0	0.06	Same as Type 1E5G								1E5GP
1SA6GT	GT	6BD	Pentode	R.F. Amp.	Fil.	1.4	0.05	45 67.5 90	45 67.5 67.5	0 0 0	1.1 2.4 2.45	0.3 0.7 0.68	700,000 600,000 800,000	750 950 970	..... ..... .....
1SB6GT	GT	6BE	Di. Pent.	Det. Amp.	Fil.	1.4	0.05	45 90	45 67.5	0 0	0.6 1.45	0.16 0.38	900,000 700,000	500 665	..... .....
1V	ST-12	4G	Diode	H.W. Rect.	Cath.	6.3	0.30	350 V. RMS Plate, 45 Ma. DC Output.								
2A3	ST-16	4D	Triode	Pwr. Amp.	Fil.	2.5	2.5	250 300	..... .....	45.0 62.0	60 40 per tube	.....	2,500 3,000	4.2	3,500 15,000	2A3H
2A3H	ST-16	4D	Triode	Pwr. Amp.	Cath.	2.5	2.5	Same as Type 2A3.								

① Load Resistance for Power Output Tubes.

② Mutual Conductance for Tetrodes, Pentodes Etc.

▼ Conversion Conductance.

* Approximate.

♣ Plate to Plate.

■ Through 20,000 Ohms.

OBSOLETE AND SELDOM ENCOUNTERED TYPES—Cont.

Type	Construction		Class	Use	Emitter			Plate Volts	Screen Volts	Neg. Grid Volts	Plate Current Ma.	Screen Current Ma.	Plate ① Resistance Ohms	Amp. ② Factor	Power Output Mw.	Suggested Replacement Type
	Style	Base Diag.			Type	Volts	Amp.									
2A5	ST-14	6B	Pentode	Pwr. Amp.	Cath.	2.5	1.75	250 285	250 285	16.5 20.0	34 38	6.5 7.0	7,000 7,000	..... .....	3,200 4,800	
2A6	ST-12	6G	Duodi Tri.	Det. Amp.	Cath.	2.5	0.80	250	.....	2.0	0.9	.....	91,000	100	.....
2A7, 2A7S	ST-12	7C	Heptode	Converter	Cath.	2.5	0.80	Same Characteristics as Types 6A7 or 6A8G.								
2B7, 2B7S	ST-12	7D	Diode Pent.	Det. Amp.	Cath.	2.5	0.80	100 250	100 100	3.0 3.0	5.8 6.0	1.7 1.5	300,000 800,000	950 1,000	..... .....
2E5	T-9	6R	Elect. Ray	Indicator	Cath.	2.5	0.80	Same Characteristics as Type 6E5.								
2S/4S	ST-12	5D	Duo Diode	Det.	Cath.	2.5	1.35	Approximate 40 Ma. Per Plate, 50 Ma. DC Output.								
2V3G	ST-12	4Y	Diode	H.W. Rect.	Fil.	2.5	5.0	6000 V. RMS Plate, 2 Ma DC Output.								
2W3GT	GT	4X	Diode	H.W. Rect.	Fil.	2.5	1.50	350 V. RMS Plate, 55 Ma. DC Output, Cond. Filter Input.								
2Z2/G84	ST-12	4B	Diode	H.W. Rect.	Fil.	2.5	1.50	350 V. RMS Plate, 50 Ma. DC Output								
G2/2S	.....	5D	Duo Diode	Det.	Cath.	2.5	1.75	.....	.....	.....	.....	.....	.....	.....	.....	2S/4S
4A6G	ST-12	8L	Duo Tri.	Pwr. Amp.	Fil.	2.0 4.0	0.12 0.06	90	.....	1.5	Class P to P Load 10.8 B Amp.		8,000	20	1,000	
G4/4S	.....	5D	Duo. Di.	Det.	Cath.	2.5	1.0	.....	.....	.....	.....	.....	.....	.....	.....	2S/4S
5T4	Metal	5T	Duo Di.	F.W. Rect.	Fil.	5.0	2.0	450 V. RMS Per Plate, 225 Ma. DC Output, Cond. Input Filter. 550 V. RMS Per Plate, 225 Ma. DC Output, Choke Input Filter								5U4G
KR5	ST-16	5B	Pentode	Pwr. Amp.	Fil.	6.3	0.30	135	135	9.0	14	2.5	9,500	1,900	700	6A4/LA
6A4/LA	ST-14	5B	Pentode	Pwr. Amp.	Fil.	6.3	0.30	100 180	100 180	6.5 12.0	9.0 22.0	1.6 3.9	11,000 8,000	1,200 2,200	310 1,400	
6A7S	ST-12	7C	Heptode	Converter	Cath.	6.3	0.30	Same as Type 6A7.								6A7
6AB6G	ST-12	7AU	Duo Tri.	Pwr. Amp.	Cath.	6.3	0.50	250 250	Inp. Tri. Outp. Tri.	0	5.0 34.0	..... .....	..... 8,000	..... .....	..... 3,500	6N6G

① Load Resistance for Power Output Tubes.

② Mutual Conductance for Tetrodes, Pentodes Etc.

▼ Conversion Conductance.

* Approximate.

♣ Plate to Plate.

■ Through 20,000 Ohms.

OBSOLETE AND SELDOM ENCOUNTERED TYPES—Cont.

Type	Construction		Class	Use	Emitter			Plate Volts	Screen Volts	Neg. Grid Volts	Plate Current Ma.	Screen Current Ma.	Plate ① Resistance Ohms	Amp. ② Factor	Power Output Mw.	Suggested Replacement Type
	Style	Base Diag.			Type	Volts	Amp.									
6AL6G	ST-16	6AM	Beam Amp.	Pwr. Amp.	Cath.	6.3	0.90	Same as 6L6G.								
6B5	ST-14	6AS	Duo Tri.	Pwr. Amp.	Cath.	6.3	0.80	300	Inp. Tri. Outp. Tri.	0	8.0	7,000	....	4,000	
								300		45.0				
6B6G	ST-12	7V	Duodi Tri.	Det. Amp.	Cath.	6.3	0.30	250	....	20	0.9	91,000	100	....	6Q7GT
6B7S	ST-12	7D	Duodi Pent.	Det. Amp.	Cath.	6.3	0.30	Same as 6B7.								
6C7	ST-12	7G	Duodi Tri.	Det. Amp.	Cath.	6.3	0.30	250	....	9.0	4.5	16,000	20	....	
6C8G	ST-12	8G	Duo Tri.	Amp. Inv.	Cath.	6.3	0.30	250	....	4.5	3.2	22,500	36	....	
6D5G	.....	6Q	Triode	Pwr. Amp.	Cath.	6.3	0.70	275	....	40	31	7,200	4.7	1,400	
6D7	ST-12	7H	Pentode	Amp.	Cath.	6.3	0.30	Same as 6C6.								
6E7	ST-12	7H	Pentode	Amp.	Cath.	6.3	0.30	Same as 6D6.								
6F7, 6F7S	ST-12	7E	Tri. Pent.	Amp.	Cath.	6.3	0.30	100	(Tri.)	3.0	3.5	16,200	8.5	(Pent.)		
								250		100	3.0	6.5	850,000			1,100
6F8G	ST-12	8G	Duo Tri.	Amp. Inv.	Cath.	6.3	0.60	250	....	8.0	9.0	7,700	20		
6G5/6H5	T-9	6R	Elect. Ray	Indicator	Cath.	6.3	0.30	....	....	0-22	....	....	....	....	6U5/6G5
6H4GT	GT	5AF	Diode	Rect.	Cath.	6.3	0.15	100	....	....	4.0	....	....	....
6H5	T-9	6R	Elect. Ray	Indicator	Cath.	6.3	0.30	Same as 6G5/6H5								6U5/6G5
6P7G	ST-12	7U	Pent. Tri.	Amp.	Cath.	6.3	0.30	Same as 6F7.								
6Q6, 6Q6G	.....	6Y	Diode Tri.	Det. Amp.	Cath.	6.3	0.15	250	....	3.0	1.2	....	65	....	6T7G
6Q6G/6T7G	.....	7V	Duodi Tri.	Det. Amp.	Cath.	6.3	0.15	250	....	3.0	1.2	....	65	....	
6T5	ST-12	6R	Elect. Ray	Indicator	Cath.	6.3	0.30	250	....	0-22	3.0	....	....	....	6U5/6G5
6T7G/6Q6G	ST-12	7V	Duodi Tri.	Det. Amp.	Cath.	6.3	0.15	250	....	3.0	1.2	62,000	65	....	

① Load Resistance for Power Output Tubes.

③ Mutual Conductance for Tetrodes, Pentodes Etc.

▼ Conversion Conductance.

♦ Approximate.

♠ Plate to Plate.

♣ Through 20,000 Ohms.

§ Plate and Target Supply.

OBSOLETE AND SELDOM ENCOUNTERED TYPES—Cont.

Type	Construction		Class	Use	Emitter			Plate Volts	Screen Volts	Neg. Grid Volts	Plate Current Ma.	Screen Current Ma.	Plate ① Resistance Ohms	Amp. ② Factor	Power Output Mw.	Suggested Replacement Type		
	Style	Base Diag.			Type	Volts	Amp.											
6W5G	ST-12	6S	Duo Diode	F.W. Rect.	Cath.	6.3	0.90	325 V. RMS Per Plate, 90 Ma. DC Output, Cond. Input Filter 450 V. RMS Per Plate, 90 Ma. DC Output, Choke Input Filter.								6X5G		
6Y5	ST-12	6J	Duo Diode	F.W. Rect.	Cath.	6.3	0.80	350 V. RMS Per Plate, 50 Ma. DC Output.										
6Y5V	ST-12	6J	Duo Diode	F.W. Rect.	Cath.	6.3	0.80	350 V. RMS Per Plate, 60 Ma. DC Output.										
6Z3	.....	4G	Diode	H.W. Rect.	Cath.	6.3	0.30	350 V. RMS Plate, 50 Ma. DC Output.								1V	
6Z4, 6Z4/84	ST-12	5D	Duo Diode	F.W. Rect.	Cath.	6.3	0.50	350 V. RMS Per Plate, 60 Ma. DC Output, Cond. Input Filter.										
6Z5, 6Z5/12Z5	ST-12	6K	Duo Diode	F.W. Rect.	Cath.	6.3	0.80	12.6	0.40	230 V. RMS Per Plate, 60 Ma. DC Output.								
6ZY5G	ST-12	6S	Duo Diode	F.W. Rect.	Cath.	6.3	0.30	325 V. RMS Per Plate, 40 Ma. DC Output, Cond. Input Filter.										
7A7LM	Metal	8V	Pentode	Amp.	Cath.	6.3	0.30	250	100	3.0	8.6	2.0	800,000*	2,000	....	7A7	
7AB7	Lock In	8B0	Pentode	Amp.	Cath.	6.3	0.15	250	100	2.0	4.0	1.3	500,000	1,800	....		
7B5LT	T-9	6AE	Pentode	Pwr. Amp.	Cath.	6.3	0.40	250	250	18.0	32.0	5.5	7,600	2,300	3,400	7B5		
								315	250	21.0	25.5	4.0	9,000	2,100	4,500			
7B6LM	Metal	8W	Duodi Tri.	Det. Amp.	Cath.	6.3	0.30	100	....	1.0	0.4	....	110,000	100	....	7B6
								250	....	2.0	0.9	....	91,000	100	....		
7B8LM	Metal	8X	Heptode	Converter	Cath.	6.3	0.30	100	50	1.5	1.1	1.3	600,000	360*	G2 = 100 V. at 2.0 Ma. ■ G2 = 250 V. at 4.0 Ma. ■	7B8		
								250	100	3.0	3.5	2.7	360,000	550*				
7C5LT	T-9	6AA	Beam Amp.	Pwr. Amp.	Cath.	6.3	0.45	250	250	12.5	45.0	4.5	5,000	4,100	4,500	7C5		
								315	225	13.0	34.0	2.2	8,500	3,750	5,500			
WD11	T-8	4F	Triode	Det. Amp.	Fil.	1.1	0.25	45 Det. + Fil. 0.25 to 5.0 Meg. Grid Leak. 90 Amp. | 4.5 | 2.5 | .... | 15,500								6.6	
WX12	T-10	4D	Triode	Det. Amp.	Fil.	1.1	0.25	Same as WD11.										
12A, 112A	ST-14	4D	Triode	Det. Amp.	Fil.	5.0	0.25	90	....	4.5	5.0	....	5,400	8.5	35	
								135	....	9.0	6.2	....	5,100	8.5	130	

① Load Resistance for Power Output Tubes.

③ Mutual Conductance for Tetrodes, Pentodes Etc.

▼ Conversion Conductance.

♦ Approximate.

♠ Plate to Plate.

♣ Through 20,000 Ohms.

§ Plate and Target Supply.

OBSOLETE AND SELDOM ENCOUNTERED TYPES—Cont.

Type	Construction		Class	Use	Emitter			Plate Volts	Screen Volts	Neg. Grid Volts	Plate Current Ma.	Screen Current Ma.	Plate ① Resistance Ohms	Amp. ② Factor	Power Output Mw.	Suggested Replacement Type	
	Style	Base Diag.			Type	Volts	Amp.										
12A6,	Metal	7AC	Beam Amp.	Pwr. Amp.	Cath.	12.6	0.15	250	250	12.5	30	3.5	7,500	3,000	3,400		
12A6GT	T-9	7AC	Beam Amp.	Pwr. Amp.	Cath.	12.6	0.15	Same as 12A6.									
12A7	ST-12	7K	Diode Pent.	Rect. Amp.	Cath.	12.6	0.30	125 V. RMS Plate, 30 Ma. DC Output (Rect.) 135 | 135 | 13.5 | 9.0 | 2.5 | 13,500 | 975 | 550									
12B7	Lock In	8V	Pentode	Amp.	Cath.	12.6	0.15	Same as Lock In Type 14A7/12B7.									
12C8	Metal	8E	Duodi Pent.	Det. Amp.	Cath.	12.6	0.15	See Type 6B8.									
12Z3	ST-12	4G	Diode	H.W. Rect.	Cath.	12.6	0.30	235 V. RMS Per Plate, 55 Ma. DC Output, Cond. Input Filter.									
12Z5	7L	Duo Diode	Rect. Doub.	Cath.	12.6	0.30	225 V. RMS Per Plate, 60 Ma. DC Output, Condenser Input Filter.									
13	.....	4C	Duo Diode	F.W. Rect.	Fil.	5.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	80
14Z3	4G	Diode	H.W. Rect.	Cath.	14.0	0.30	250 V. RMS Plate, 60 Ma. DC Output.									12Z3
15	ST-12	5F	Pentode	Amp.	Cath.	2.0	0.22	135	67.5	1.5	1.85	0.3	800,000	750	.....	.....
16, 16B	.....	4B	Diode	H.W. Rect.	Fil.	7.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	81
18	ST-14	6B	Pentode	Pwr. Amp.	Cath.	14.0	0.30	See Type 6F6G.									
20	T-8	4D	Triode	Pwr. Amp.	Fil.	3.3	0.132	90 135	.....	16.5 22.5	2.8 6.0	.....	9,600 6,500	3.5 3.5	50 130	
22	ST-14	4K	Tetrode	Amp.	Fil.	3.3	0.132	135	67.5	1.5	3.7	1.3	250,000	500	.....	
22AC	.....	5E	Tetrode	Amp.	Cath.	2.5	1.75	250	90	3.0	4.0	1.7	.....	1,050	.....	24A
24S	ST-14	5E	Tetrode	Amp.	Cath.	2.5	1.75	See Type 24A.									
25, 25S	.....	6M	Duodi Tri.	Det. Amp.	Fil.	2.0	0.06	135	.....	3.0	1.0	.....	.....	20	.....	1B5/25S
25B5	ST-12	6D	Duo Tri.	Pwr. Amp.	Cath.	25.0	0.30	See Type 25N6G.									
25D8GT	.....	8AF	Di. Tri. Pent.	Det. Amp.	Cath.	25.0	0.15	100 100	..... 100	1.0 3.0	.5 8.5	..... 2.7	.....	100 1,900	(Tri.) (Pent.)	
25N6G	ST-12	7W	Duo Tri.	Pwr. Amp.	Cath.	25.0	0.30	110 180	110* 100*	0 0	45 46	7.0* 5.8*	2,000 4,000	.....	2,000 3,800	

① Load Resistance for Power Output Tubes.

② Mutual Conductance for Tetrodes, Pentodes Etc.

♣ Conversion Conductance.

♣ Approximate.

♣ Plate to Plate.

♣ Through 20,000 Ohms.

*Screen listings Refer to Input Triode.

OBSOLETE AND SELDOM ENCOUNTERED TYPES—Cont.

Type	Construction		Class	Use	Emitter			Plate Volts	Screen Volts	Neg. Grid Volts	Plate Current Ma.	Screen Current Ma.	Plate ① Resistance Ohms	Amp. ② Factor	Powder Output Mw.	Suggested Replacement Type	
	Style	Base Diag.			Type	Volts	Amp.										
25Y5	ST-12	6E	Duo Diode	Rect. Doub.	Cath.	25.0	0.30	117 V. RMS Per Plate, 75 Ma. DC Output, Per Plate. 235 V. RMS Plate, 75 Ma. DC Output Per Plate.									25Z5
KR25	.....	6B	Pentode	Pwr. Amp.	Cath.	2.5	1.75	250	250	16.5	3.4	6.5	7,000	2200	3,000	2A5
26	ST-14	4D	Triode	Amp.	Fil.	1.5	1.05	90 180	.....	7.0 14.5	2.9 6.2	.....	8,900 7,300	8.3 8.3	.....	
27HM	.....	5A	Triode	Amp.	Cath.	2.5	1.75	180	.....	13.5	5.0	.....	9,600	13	.....	56
27S	5A	Triode	Amp.	Cath.	2.5	1.75	See Type 27.									
KR28	5D	Duo Diode	F.W. Rect.	Cath.	6.3	0.50	350 V. RMS, 50 Ma. DC Output.									84, 6Z4
35A5LT	T-9	5AA	Beam Pwr.	Amp.	Cath.	35.0	0.15	110	110	7.5	40	3.0	2,500	5800	1500	35A5	
35S/51S	ST-14	5E	Tetrode	Amp.	Cath.	2.5	1.75	See Type 35/51.									
35Z3LT	T-9	4Z	Diode	H.W. Rect.	Cath.	35.0	0.15	235 V. RMS Plate, 100 Ma. DC Output									35Z3
35Z6G	ST-14	7Q	Duo Diode	Doub. Rect.	Cath.	35.0	0.30	117 V. RMS Plate, 110 Ma. DC Output									
36A	ST-12	5E	Tetrode	Amp.	Cath.	6.3	0.30	250	90	3.0	3.2	1.7	550,000	1080	.....	36
37A	ST-12	5A	Triode	Amp.	Cath.	6.3	0.30	180	.....	13.5	4.3	.....	10,200	9.2	.....	37
38A	ST-12	5F	Pentode	Pwr. Amp.	Cath.	6.3	0.30	250	250	25.0	22.0	3.8	10,000	1,200	2,500	38	
39A	ST-12	5F	Pentode	Amp.	Cath.	6.3	0.30	180	90	3.0	5.8	1.4	750,000	1,000	.....	39/44
40	ST-14	4D	Triode	Amp.	Fil.	5.0	0.25	135	.....	1.5	0.2	.....	150,000	30	.....	
44	5F	Pentode	Amp.	Cath.	6.3	0.30	See Type 39 or 39/44.									
45A	.....	4D	Triode	Pwr. Amp.	Fil.	2.5	1.50	325	.....	68	43	.....	3,200	3.5	3,000	45
48	ST-16	6A	Tetrode	Pwr. Amp.	Cath.	30.	0.40	95 125	95 100	20.0 22.5	52 52	12.0 12.0	1,500 1,500	3,900 3,900	2,000 3,000		
49	ST-14	5C	Dual Grid Tri.	Class A Amp. Class B Amp.	Fil.	2.0	0.12	135 180	Gs to P Gs to G	20 0	6.0 4.0	..... 2 tubes	11,000 12,000	4.7	170 3,500	
HZ50	4G	Diode	H.W. Rect.	Cath.	12.6	0.30	250 V. RMS Plate, 60 Ma. DC Output.									12Z3
51, 51S	ST-14	5E	Tetrode	Amp.	Cath.	2.5	1.75	See Type 35, 35/51.									

① Load Resistance for Power Output Tubes.

② Mutual Conductance for Tetrodes, Pentodes Etc.

♣ Plate to Plate.

OBSOLETE AND SELDOM ENCOUNTERED TYPES—Cont.

Type	Construction		Class	Use	Emitter			Plate Volts	Screen Volts	Neg. Grid Volts	Plate Current Ma.	Screen Current Ma.	Plate ① Resistance Ohms	Amp. ② Factor	Power Output Mw.	Suggested Replacement Type
	Style	Base Diag.			Type	Volts	Amp.									
52	ST-14	5C	Dual Grid Tri.	Class A Amp. Class B Amp.	Fil.	6.3	0.30	110 180	2 Tube	0 0	43 3.0	.....	2,000 10,000	5.2	1,500 5,000	
55S	ST-12	6G	Duodi Tri.	Det. Amp.	Cath.	2.5	1.00	250	.....	20	8.0	.....	7,500	8.3	350	55
56AS	ST-12	5A	Triode	Amp.	Cath.	6.3	0.40	250	.....	13.5	5.0	.....	9,500	13.8	.....	76
56S	ST-12	5A	Triode	Amp.	Cath.	2.5	1.00	250	.....	13.5	5.0	.....	9,500	13.8	.....	56
57AS	ST-12	6F	Pentode	Amp.	Cath.	6.3	0.40	250	100	3.0	2.0	0.5	1 Meg.	1,225	.....	6C6
57S	ST-12	6F	Pentode	Amp.	Cath.	2.5	1.00	250	100	3.0	2.0	0.5	1 Meg.	1,225	.....	57
58AS	ST-12	6F	Pentode	Amp.	Cath.	6.3	0.40	250	100	3.0	8.2	2.0	800,000	1,600	.....	6D6
58S	ST-12	6F	Pentode	Amp.	Cath.	2.5	1.00	250	100	3.0	8.2	2.0	800,000	1,600	.....	58
59B	.....	7M	Pentode	Pwr. Amp.	Fil.	2.5	2.00	250	250	18.0	35.0	9.0	6,000	.....	3000	(See Type 59)
64, 64A	.....	5E	Tetrode	Amp.	Cath.	6.3	0.40	180	90	3.0	3.1	1.5	500,000	1,050	.....	36
65, 65A	.....	5E	Tetrode	Amp.	Cath.	6.3	0.40	180	90	3.0	4.5	1.3	750,000	1,000	.....	39/44
67, 67A	.....	5A	Triode	Det. Amp.	Cath.	6.3	0.40	180	.....	13.5	4.3	.....	10,200	9.2	.....	37
68, 68A	.....	5E	Pentode	Pwr. Amp.	Cath.	6.3	0.40	135	90	13.5	14	3.0	7,500	1,400	650	38
70A7GT	T-9	8AB	Di. Beam Amp.	H.W. Rect. Pwr. Amp.	Cath.	70.0	0.15	125 V. RMS Plate, 110	60 Ma. DC Output.	7.5	40	3.0	2,500	5,800	1,500	
71	ST-14	4D	Triode	Pwr. Amp.	Cath.	5.0	0.50	180	.....	40.5	20	.....	4,800	3	790	71A
71B	ST-14	4D	Triode	Pwr. Amp.	Cath.	5.0	0.125	180	.....	40.5	20	.....	4,800	3	790	71A
75S	ST-12	6G	Duodi Tri.	Det. Amp.	Cath.	6.3	0.30	250	.....	2.0	0.9	.....	91,000	100	.....	75
79	ST-12	6H	Duo Tri.	Pwr. Amp.	Cath.	6.3	0.60	250	Class B	0	21.0	Both Triodes	14,000	.....	8,000	
80M	.....	4C	Duo Di. M.V.	F.W. Rect.	Fil.	5.0	2.00	450 V. RMS Per Plate, 125 Ma. DC Output								80
81M	.....	4B	Diode M.V.	H.W. Rect.	Fil.	7.5	1.25	750 V. RMS Plate, 85 Ma. DC Output								81
82V	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	82
G84	.....	4B	Diode	H.W. Rect.	Fil.	2.5	1.50	350 V. RMS Plate, 50 Ma. DC Output								2Z2/G84
G84/2Z2	.....	4B	Diode	H.W. Rect.	Fil.	2.5	1.50	350 V. RMS Plate, 50 Ma. DC Output.								

① Load Resistance for Power Output Tubes.

② Mutual Conductance for Tetrodes, Pentodes Etc.

⊕Plate to plate

OBSOLETE AND SELDOM ENCOUNTERED TYPES—Cont.

Type	Construction		Class	Use	Emitter			Plate Volts	Screen Volts	Neg. Grid Volts	Plate Current Ma.	Screen Current Ma.	Plate ① Resistance Ohms	Amp. ② Factor	Power Output Mw.	Suggested Replacement Type
	Style	Base Diag.			Type	Volts	Amp.									
85AS	ST-12	6G	Duodi Tri.	Det. Amp.	Cath.	6.3	0.30	250	.....	9.0	4.5	.....	16,000	20	.....	85
88	.....	4C	Duo Diode	F.W. Rect.	Fil.	5.0	2.00	450 V. RMS Per Plate, 125 Ma. DC Output								83V
VR90/30	ST-12	4AJ	Diode	Voltage Reg.	Cold K	.....	.....	See Type 0B3.								
95	.....	6B	Pentode	Pwr. Amp.	Cath.	2.5	1.75	315	315	22.0	42	8.0	7,000	2,300	5,000	2A5
96	.....	4G	Diode	H.W. Rect.	Cath.	10.0	0.50	350 V. RMS Plate, 100 Ma. DC Output.								1V
98	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	84
V99	T-8	4E	Triode	Det. Amp.	Fil.	3.3	0.63	90	.....	4.5	2.5	.....	15,500	6.6	.....
X99	T-9	4D	Triode	Det. Amp.	Fil.	3.3	0.63	Same as V99.								
VR105/30	ST-12	4AJ	Diode	Voltage Reg.	Cold K	.....	.....	See Type OC3								
117P7GT	GT	8AV	Diode Beam Amp.	H.W. Rect. Pwr. Amp.	Cath.	117.0	0.09	117 V. RMS Plate, 105	75 Ma. DC Output.	5.2	43	4.0	4,000	5,300	850	
117Z4GT	GT	5AA	Diode	H.W. Rect.	Cath.	117	0.04	117 V. RMS Plate, 90 Ma. DC Output.								
143D	.....	.....	Diode	H.W. Rect.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2X2
VR150/30	ST-12	4AJ	Diode	Voltage Reg.	Cold K.	.....	.....	See Type OD3.								
182B/482B	ST-14	4D	Triode	Pwr. Amp.	Fil.	5.0	1.25	250	.....	35.0	20	.....	4,500	5.0	1,350	
183/483	ST-14	4D	Triode	Pwr. Amp.	Fil.	5.0	1.25	250	.....	65.0	20	.....	4,500	3.0	1,800	
288	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	83V
401	.....	4D	Triode	Det. Amp.	Cath.	3.0	1.35	90	.....	3.0	5.0	.....	9,500	9.5	.....
482A	.....	4D	Triode	Pwr. Amp.	Fil.	5.0	0.80	200	.....	45.0	18	.....	4,500	2.0	1,500	71A
482B	.....	4D	Triode	Pwr. Amp.	Fil.	5.0	1.25	250	.....	35.0	18	.....	4,500	5.0	1,500	182B/482B
483	.....	4D	Triode	Pwr. Amp.	Fil.	5.0	1.25	250	.....	65.0	20	.....	4,500	3.0	2,000	183/483
484	.....	5A	Triode	Det. Amp.	Cath.	2.8	1.60	180	.....	9.0	6.0	.....	9,300	12.5	.....	485
485	ST-12	5A	Triode	Det. Amp.	Cath.	3.0	1.25	180	.....	9.0	5.8	.....	8,900	12.5	.....
585	.....	4D	Triode	Pwr. Amp.	Fil.	7.5	1.25	450	.....	84.0	55	.....	4,350	3.8	4,600	50
586	.....	4D	Triode	Pwr. Amp.	Fil.	7.5	1.25	450	.....	84.0	55	.....	4,350	3.8	4,600	50

① Load Resistance for Power Output Tubes.

② Mutual Conductance for Tetrodes, Pentodes Etc.

OBSOLETE AND SELDOM ENCOUNTERED TYPES—Cont.

Type	Construction		Class	Use	Emitter			Plate Volts	Screen Volts	Neg. Grid Volts	Plate Cur- rent Ma.	Screen Cur- rent Ma.	Plate ① Resistance Ohms	Amp. ② Factor	Power Output Mw.	Suggested Replacement Type
	Style	Base Diag.			Type	Volts	Amp.									
P861	.....	5D	Duo Diode	F.W. Rect.	Cath.	6.3	0.50	225	.....	4.5	2.9	.....	13,500	8.2	.....
864	T-9	4D	Triode	Amp.	Fil.	1.1	0.25	90 135	.....	9.0	3.5	.....	13,500 12,700	8.2 8.2	.....	84
950	.....	5K	Pentode	Pwr. Amp.	Fil.	2.0	0.125	135	135	16.5	5.5	2.0	13,500	950	575	33
951	.....	4K	Tetrode	Amp.	Fil.	2.0	0.60	180	67.5	3.0	1.7	0.4	1.2 Meg.	650	.....	1B4P
1201	Lock In	8BN	Triode	Osc. Amp.	Cath.	6.3	0.15	See Type 7E5.								
1203A	Lock In	4AH	H.F. Diode	Det.	Cath.	6.3	0.15	See Type 7C4.								
1204	Lock In	8BO	Pentode	Amp.	Cath.	6.3	0.15	See Type 7AB7.								
1206	Lock In	8BV	Duo Tetrode	R.F. Amp.	Cath.	6.3	0.30	See Type 7G8.								
1221	ST-12	6F	Pentode	Amp.	Cath.	6.3	0.30	Non Microphonic, See 6C6.								
1223	ST-12	7R	Pentode	Amp.	Cath.	6.3	0.30	Non Microphonic, See 6C6.								
1231	Lock In	8V	Pentode	Amp.	Cath.	6.3	0.45	300	150	200 Ohms	10.0	2.5	700,000	5,500	(Cath. Resistor)	
1232	Lock In	8V	Pentode	Amp.	Cath.	6.3	0.45	See Type 7G7.								
1291	Lock In	7BE	Duo Triode	Osc. Amp.	Fil.	1.4 2.8	.220 .110	See Type 3B7.								
1294	Lock In	4AH	H.F. Diode	Det.	Cath.	1.4	.150	See Type 1R4.								
1299	Lock In	6BB	Beam Amp.	Pwr. Amp.	Fil.	1.4 2.8	.220 .110	See Type 3D6.								
1612	Metal	7T	Heptode	Mixer Amp.	Cath.	6.3	0.30	Non Microphonic, See 6L7.								
1626	ST-12	6Q	Triode	Osc. Amp.	Cath.	12.6	0.25	250	.....	.....	25 max	.....	.....	5	4,000	
1629	T-9	7AL	Electron Ray	Indicator	Cath.	12.6	0.15	Same as Type 6E5.								
AD	.....	4G	Diode	H.W. Rect.	Cath.	6.3	0.30	350 V. RMS Plate, 50 Ma. DC Output.								
AF	.....	4C	Duo Diode	F.W. Rect.	Fil.	2.5	3.00	500 V. RMS Per Plate, 125 Ma. DC Output.								
AG	.....	4C	Duo Diode	F.W. Rect.	Fil.	5.0	3.00	500 V. RMS Per Plate, 250 Ma. DC Output.								
AX	.....	4D	Triode	Det. Amp.	Fil.	5.0	0.25	135	.....	9.0	.....	.....	20,000	8	55	01A

① Load Resistance for Power Output Tubes.

② Mutual Conductance for Tetrodes, Pentodes Etc.

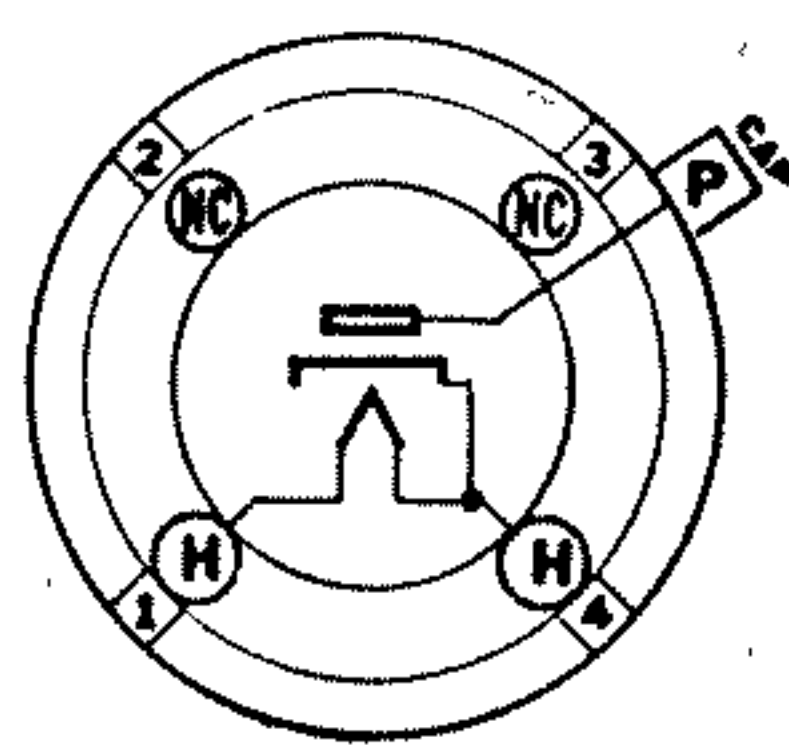
OBSOLETE AND SELDOM ENCOUNTERED TYPES—Cont.

Type	Construction		Class	Use	Emitter			Plate Volts	Screen Volts	Neg. Grid Volts	Plate Cur- rent Ma.	Screen Cur- rent Ma.	Plate ① Resistance Ohms	Amp. ② Factor	Power Output Mw.	Suggested Replacement Type
	Style	Base Diag.			Type	Volts	Amp.									
B	4E	Triode	Det. Amp.	Fil.	3.3	0.063	90	.....	4.5	2.5	.....	15,500	6.6	.....	V99
BA	4J	Duo Diode	F.W. Rect.	Cold K	.....	.....	350 V. RMS Per Plate, 350 Ma. DC Output.								
BH	4J	Duo Diode	F.W. Rect.	Cold K	.....	.....	350 V. RMS Per Plate, 125 Ma. DC Output.								
BR	4H	Diode	H.W. Rect.	Cold K	.....	.....	300 V. RMS Plate, 50 Ma. DC Output.								
D½	4B	Diode	H.W. Rect.	Fil.	7.5	1.25	700 V. RMS Plate, 85 Ma. DC Output.								
D1	4C	Duo Diode	F.W. Rect.	Fil.	5.0	2.00	350 V. RMS Per Plate, 125 Ma. DC Output.								
DE1	5A	Triode	Det. Amp.	Cath.	2.5	1.75	250	.....	21.0	5.2	.....	34,000	9	300	27
E	4D	Triode	Pwr. Amp.	Fil.	3.3	0.132	135	.....	22.5	6.5	.....	6,500	3.3	110	20
G	4D	Triode	Amp.	Fil.	5.0	0.25	180	.....	3.0	0.2	.....	150,000	30	.....	40
H	4D	Triode	Det. Amp.	Fil.	5.0	0.25	45	.....	0	1.5	.....	31,500	20	.....	01A
H2-10	4AB	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2X2/879
LA	5B	Pentode	Pwr. Amp.	Fil.	6.3	0.30	180	180	12.0	22	3.9	8,000	2,200	1,400	6A4
PZ	5B	Pentode	Pwr. Amp.	Fil.	2.5	1.75	250	250	16.5	31	6.0	7,000	2,500	2,700	47
PZH	6B	Pentode	Pwr. Amp.	Cath.	2.5	1.75	250	250	16.5	34	6.5	7,000	2,200	3,000	2A5
RE1	80
RE2	81
S02	50
Wunderlich A Auto	6N	Dual Grid	Det.	Cath.	6.3	0.40	250	.....	16.5	7.0	.....	10,200	9.2	.....
Wunderlich A	5H 6N	Dual Grid	Det.	Cath.	2.5	1.00	250	.....	16.5	7.0	.....	10,200	9.2	.....
Wunderlich B	6P	Special	Det.	Cath.	2.5	1.00	250	.....	.....	17.0	.....	.....	.....	.....
XXB	Lock In	7BW	Duo Triode	Amp.	Fil.	1.4	0.10	90	.....	0	4.5	.....	11,200	14.5	.....
XXD	Lock In	8AC	Duo Triode	Amp.	Cath.	12.6	0.15	See Type 14AF7/XXD.								
XXFM	Lock In	8BZ	Duodi Tri.	Det. Amp.	Cath.	6.3	0.30	See Type 7X7.								
XXL	Lock In	5AC	Triode	Amp.	Cath.	6.3	0.30	100 250	.....	0 8.0	10.0 8.0	.....	7,000 8,700	25 20	.....

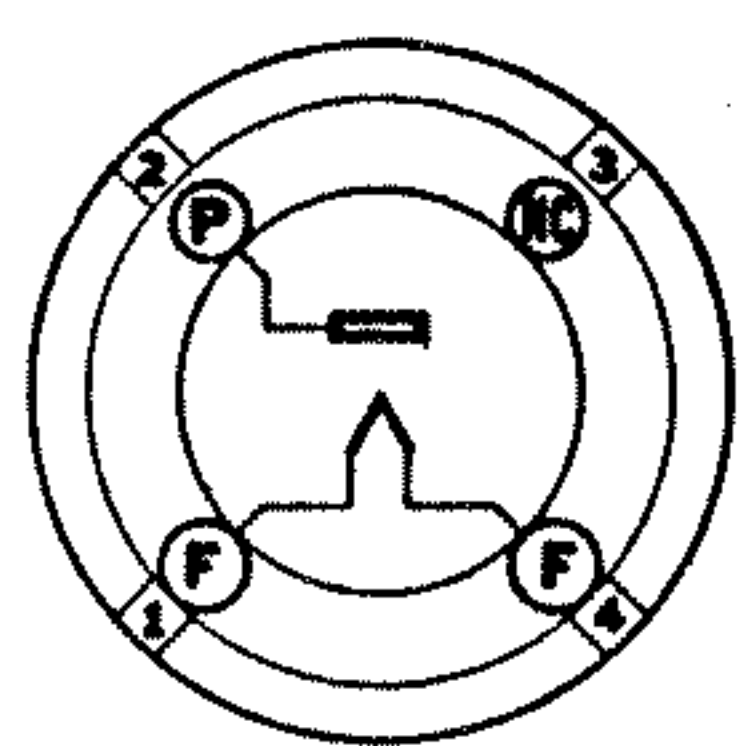
① Load Resistance for Power Output Tubes.

② Mutual Conductance for Tetrodes, Pentodes Etc.

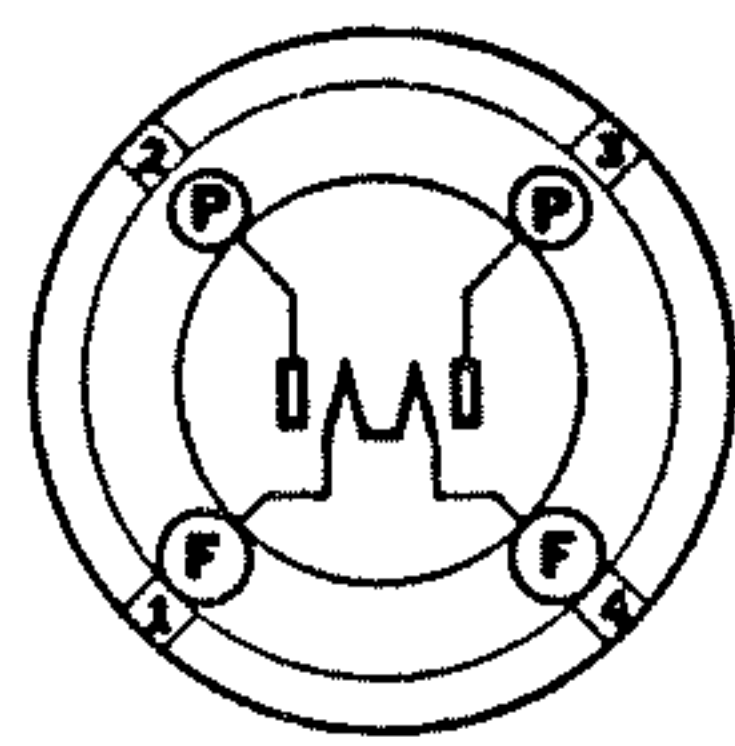
BASE DIAGRAMS FOR SELDOM ENCOUNTERED TYPES



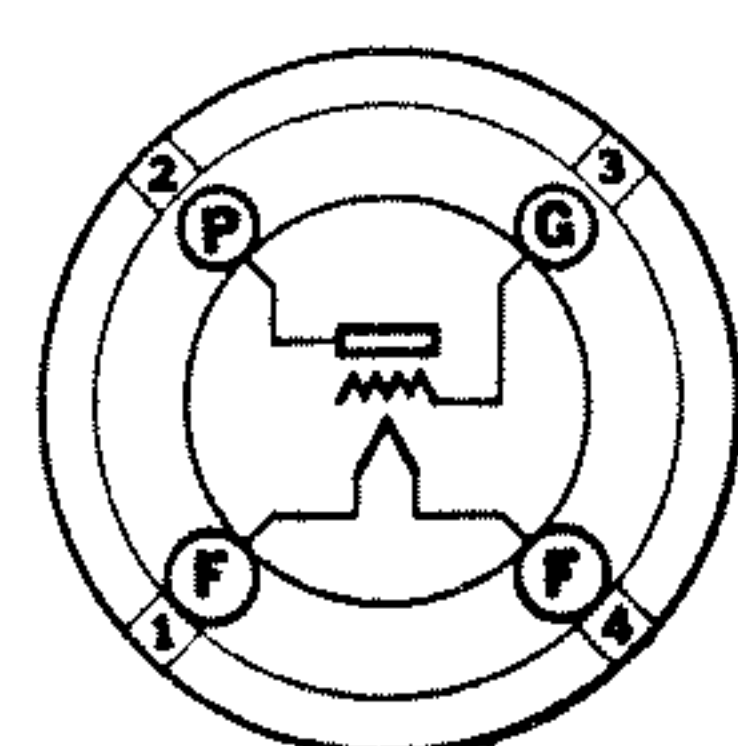
4AB



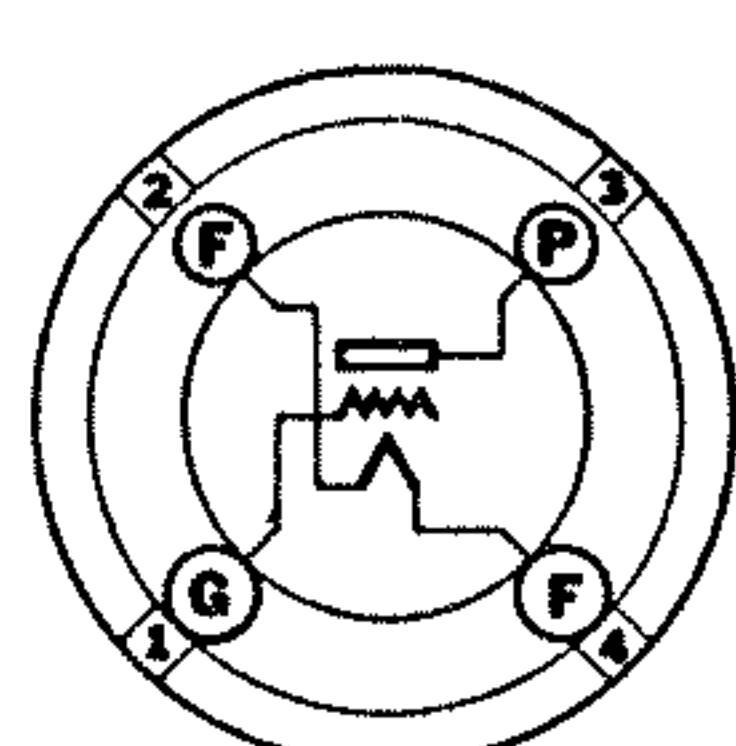
4B



4C

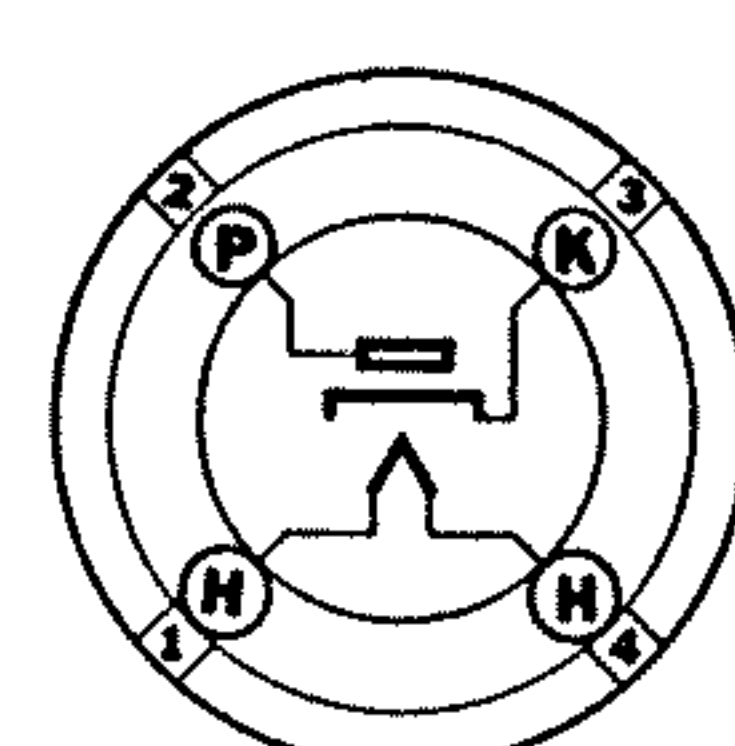


4D



4E

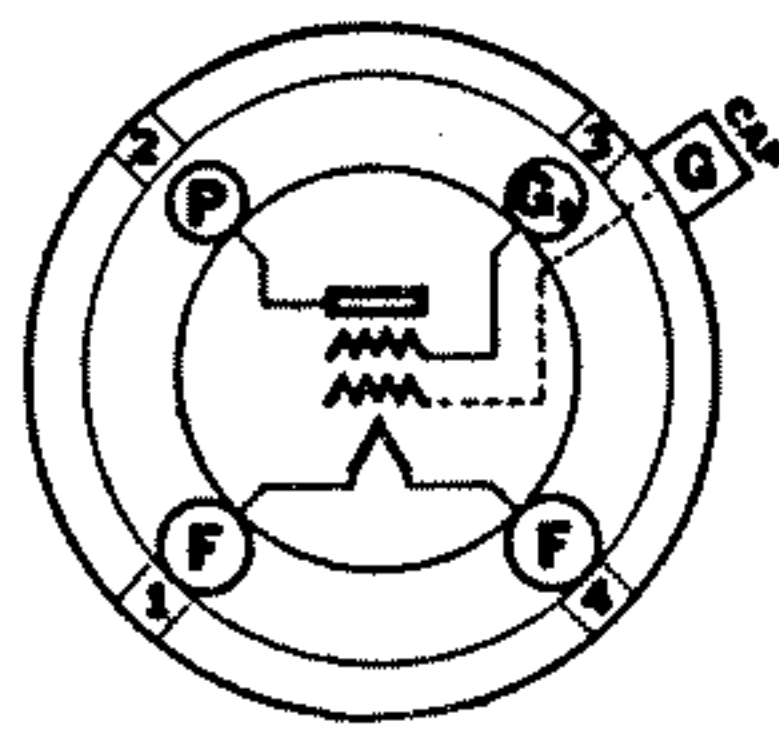
- 4F**
- 1 F
 - 2 P
 - 3 F
 - 4 G



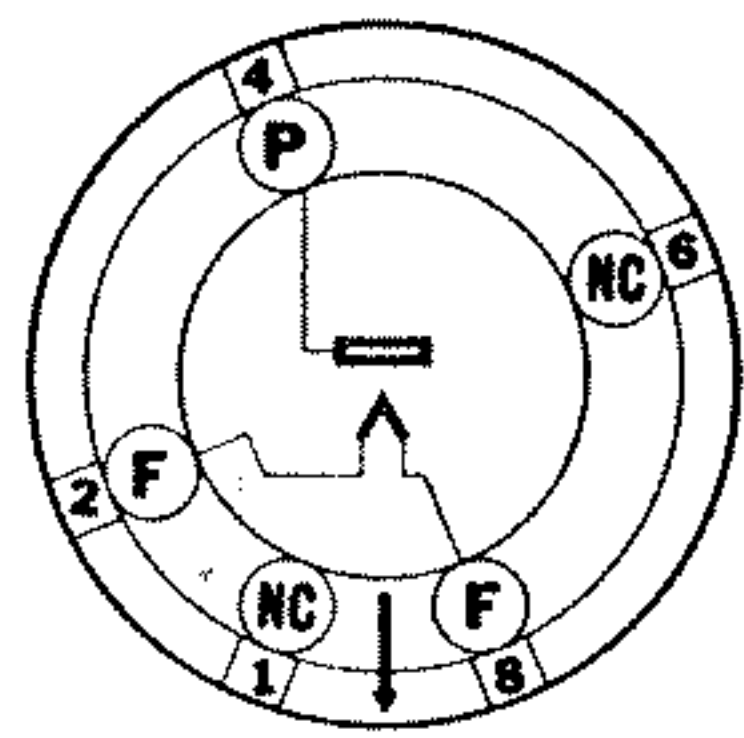
4G

- 4H**
- 1 K
 - 2 J
 - 3 J
 - 4 A

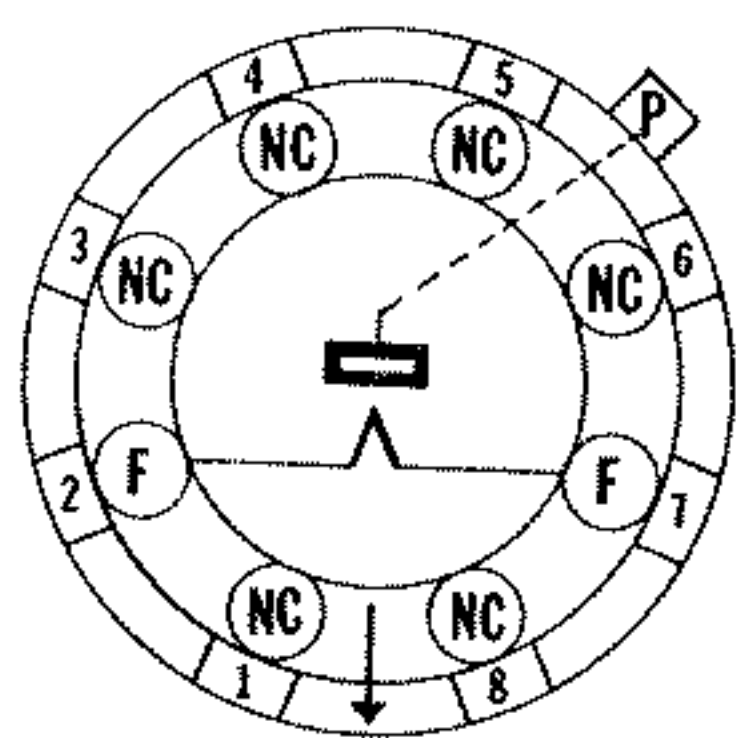
- 4J**
- 1 A1
 - 2 K
 - 3 NC
 - 4 A2



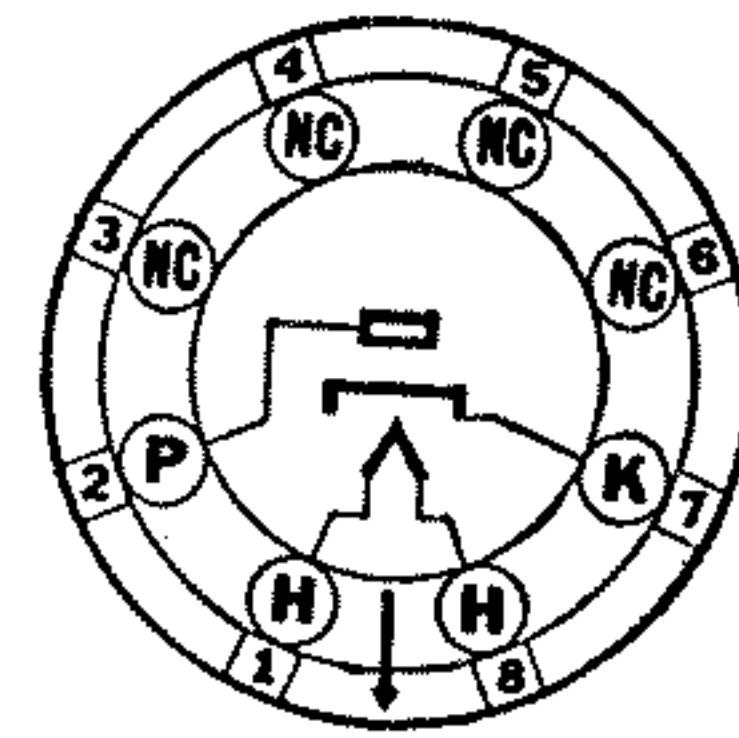
4K



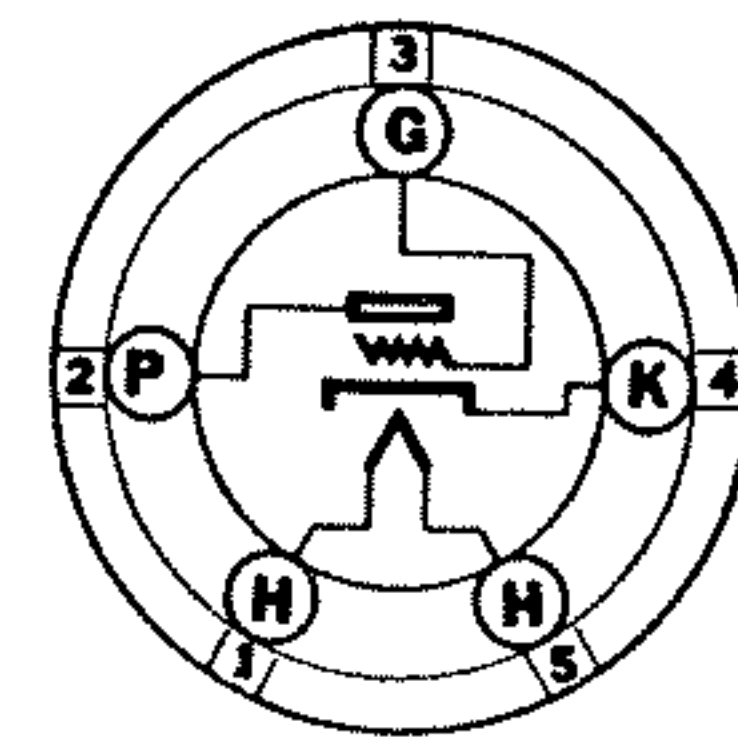
4X



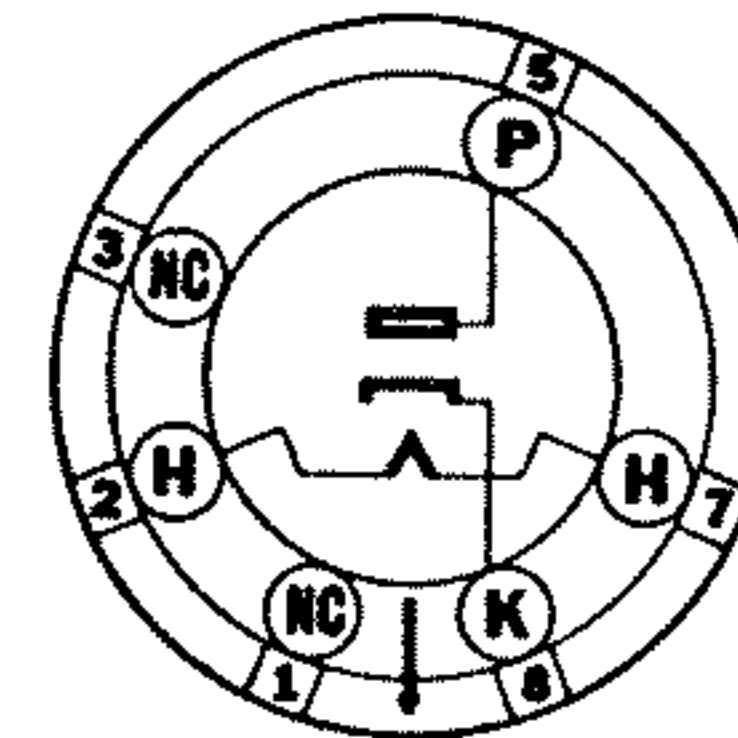
4Y



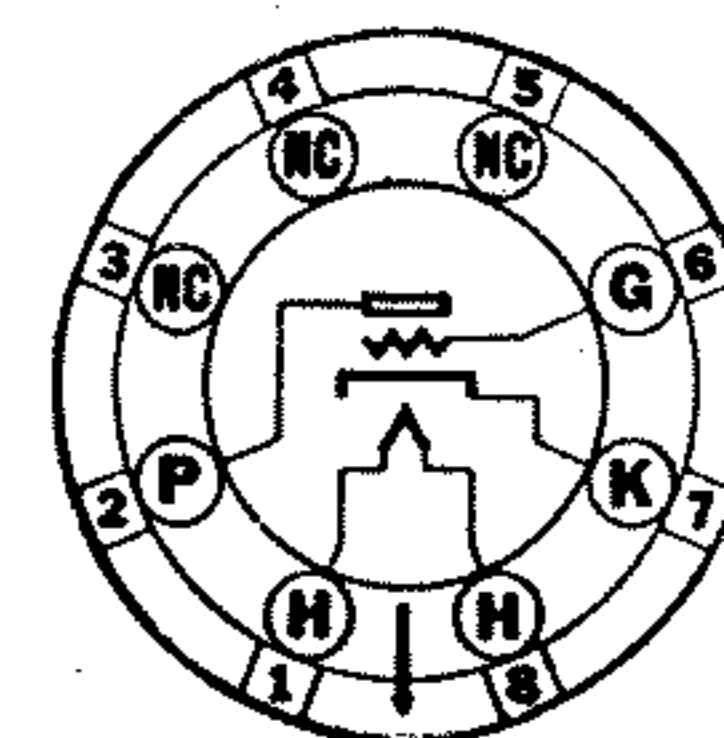
4Z



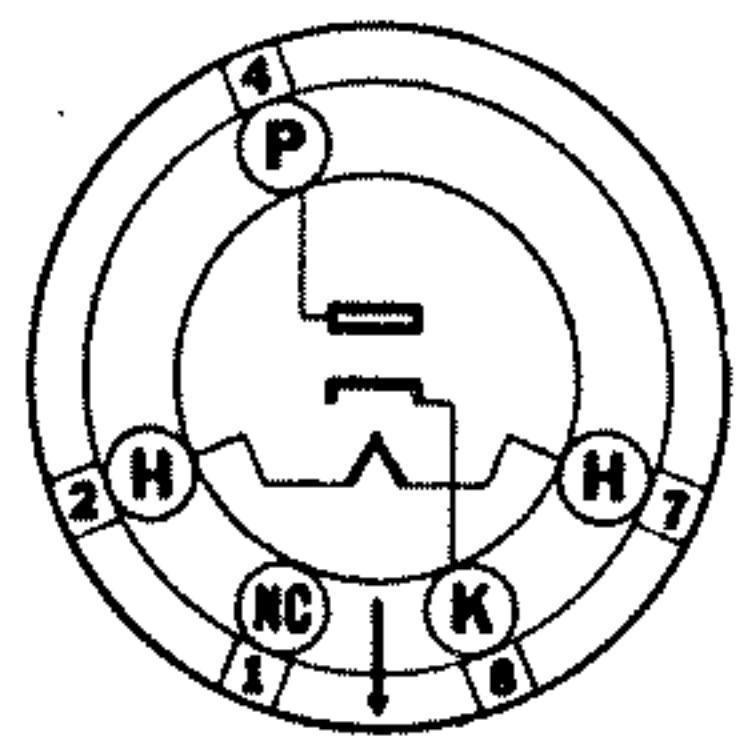
5A



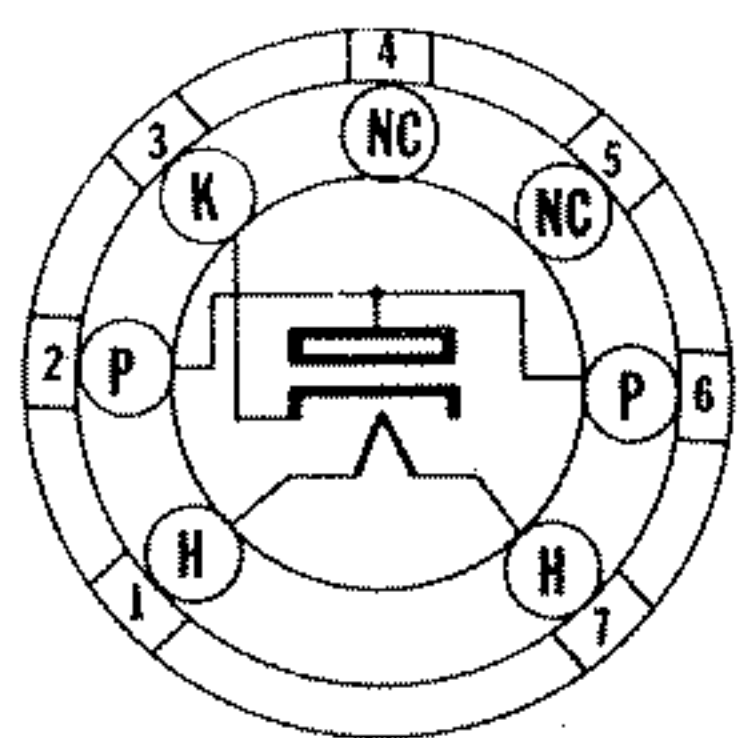
5AA



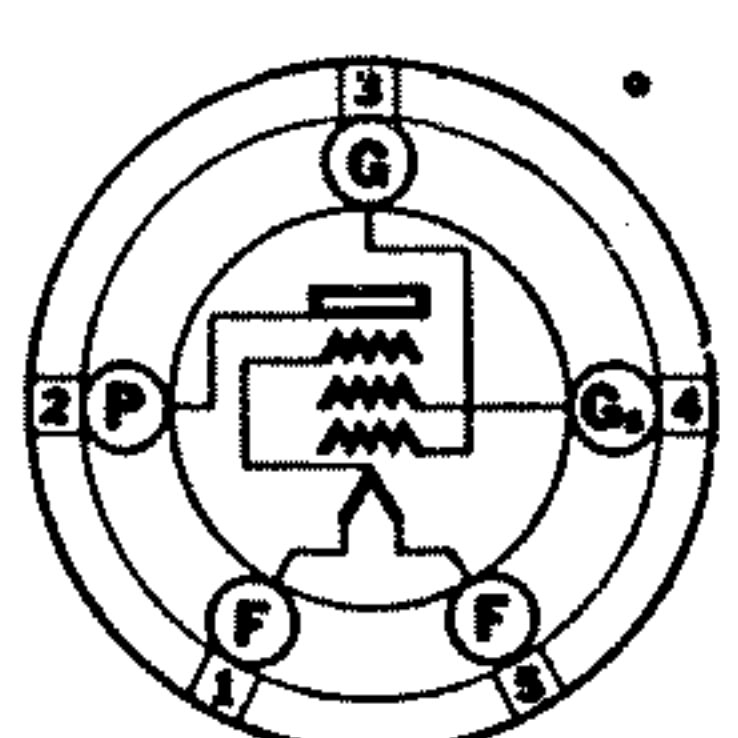
5AC



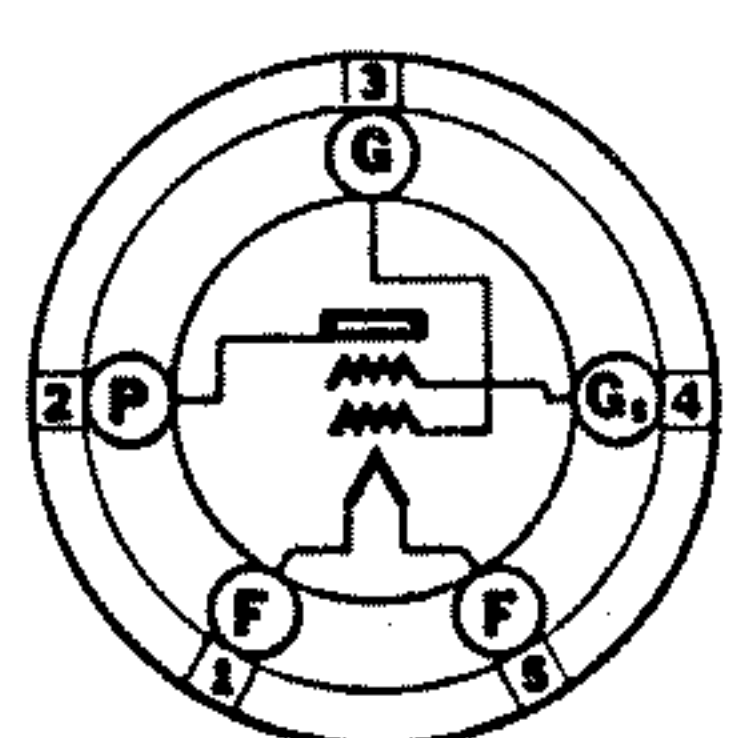
5AF



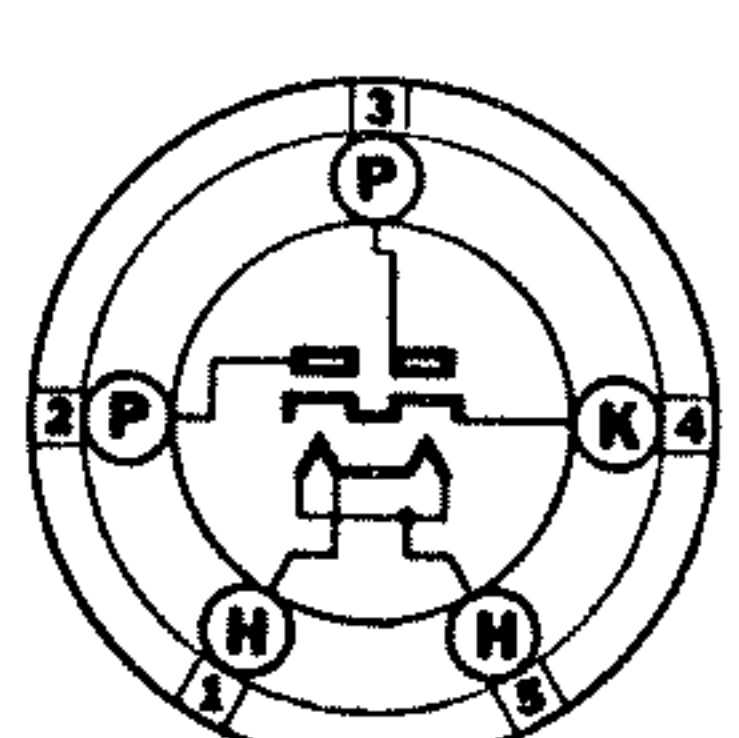
5AP



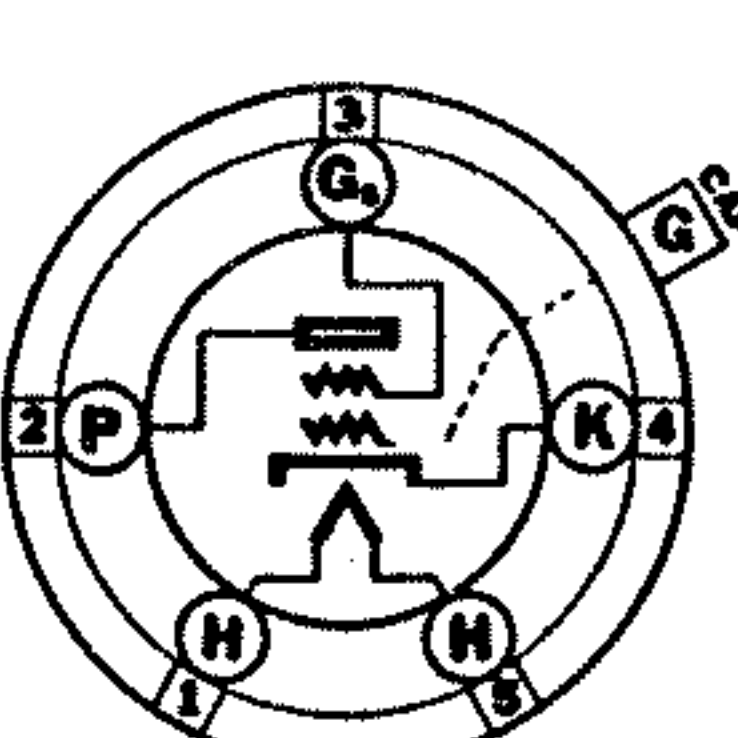
5B



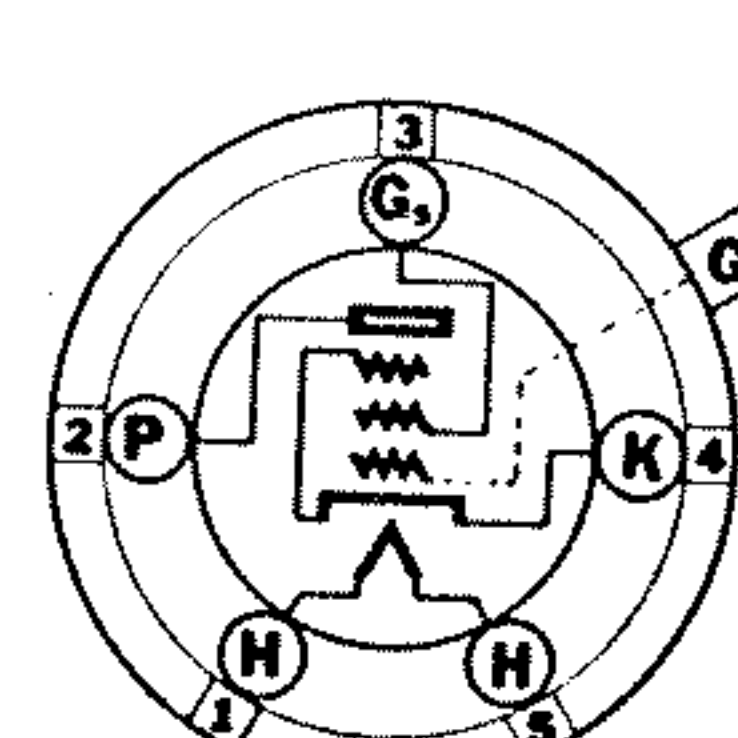
5C



5D

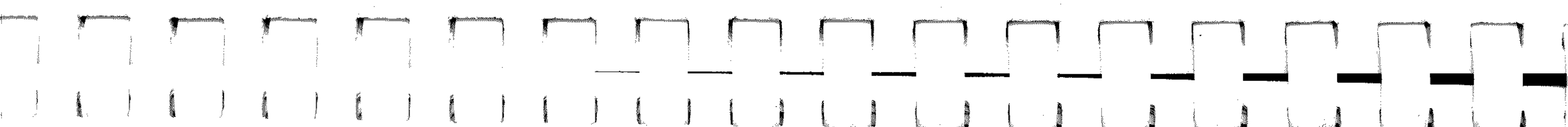


5E

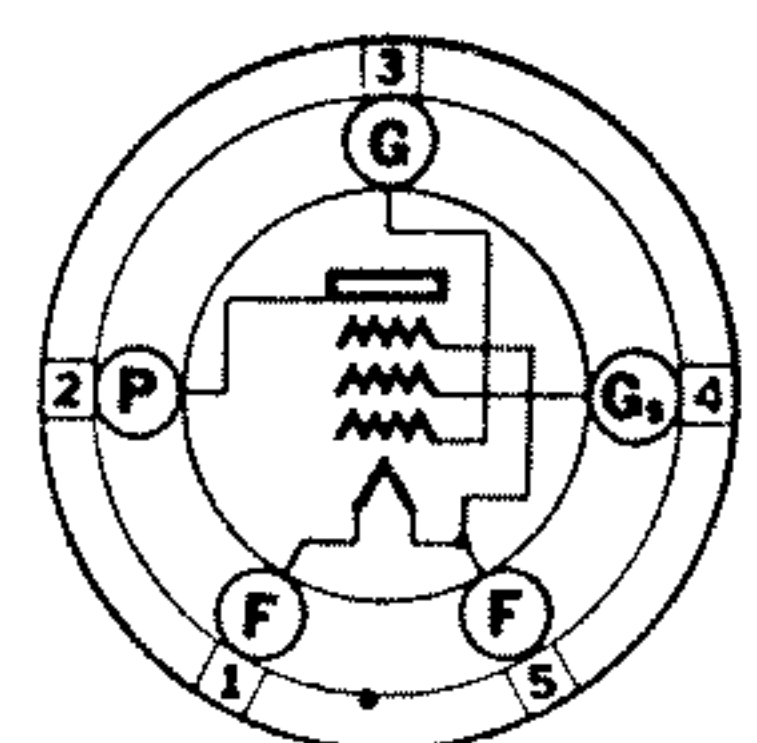


5F

- 5H**
- 1 H
 - 2 G
 - 3 P
 - 4 G
 - 5 H
 - Cap K

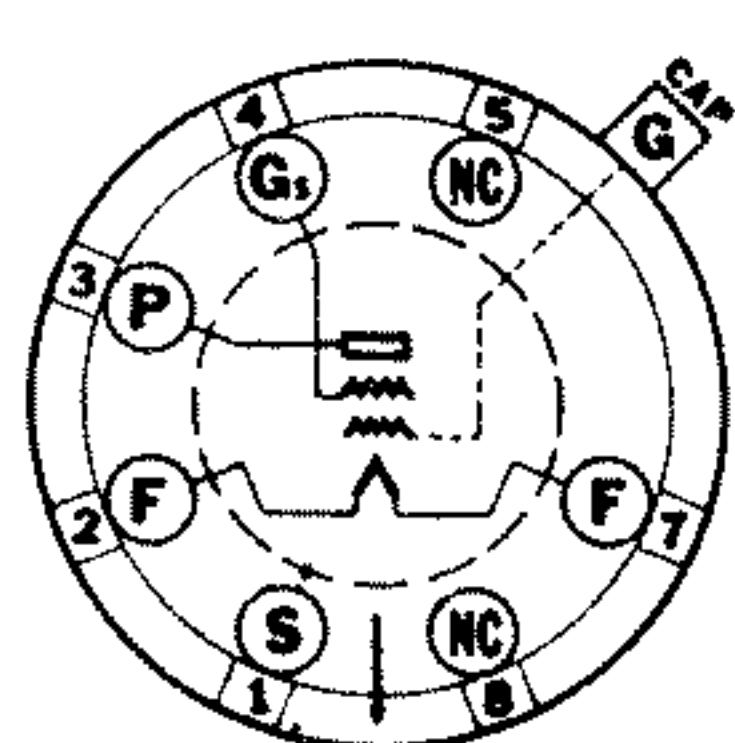


BASE DIAGRAMS FOR SELDOM ENCOUNTERED TYPES—Cont.

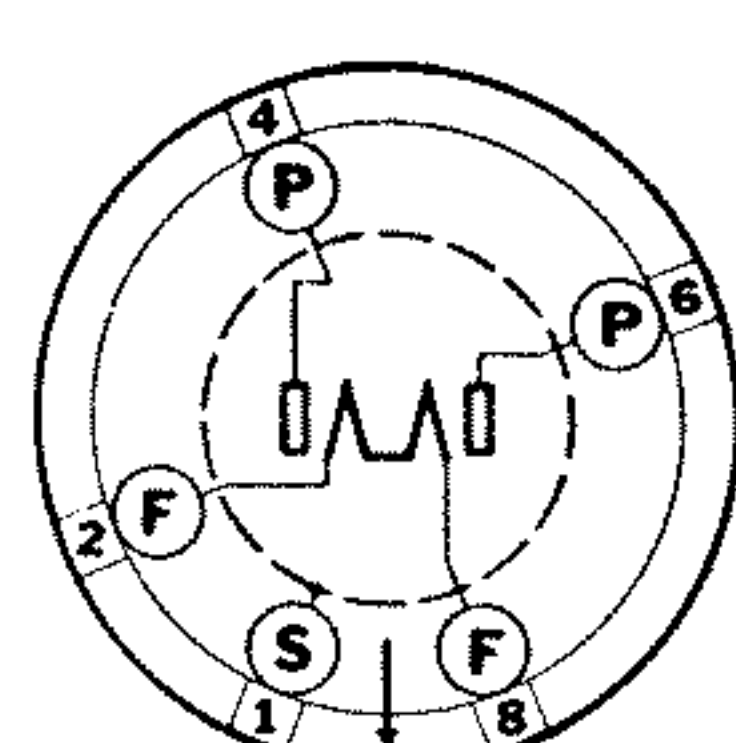


5K

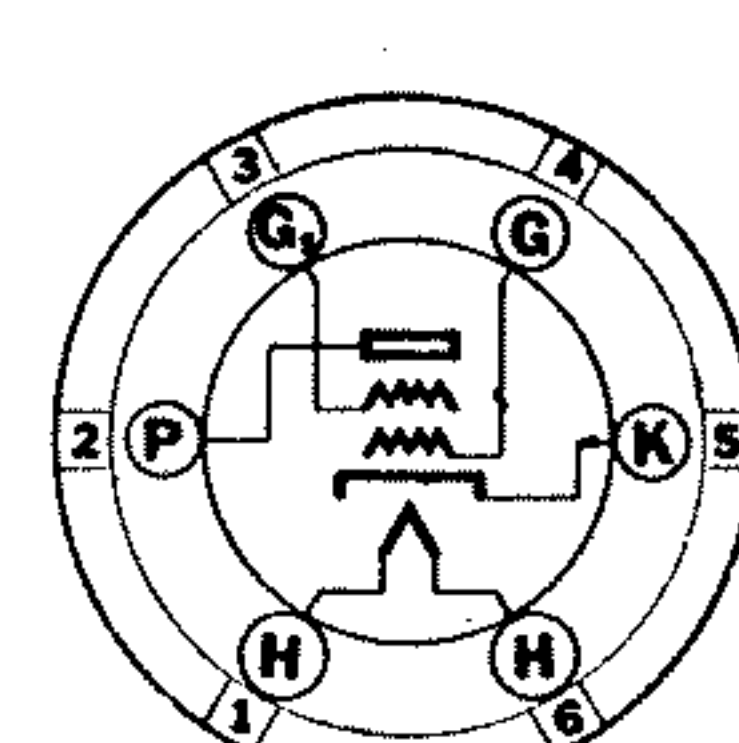
- 5N**
- 1 J
 - 2 A
 - 3 A
 - 4 K
 - 5 J



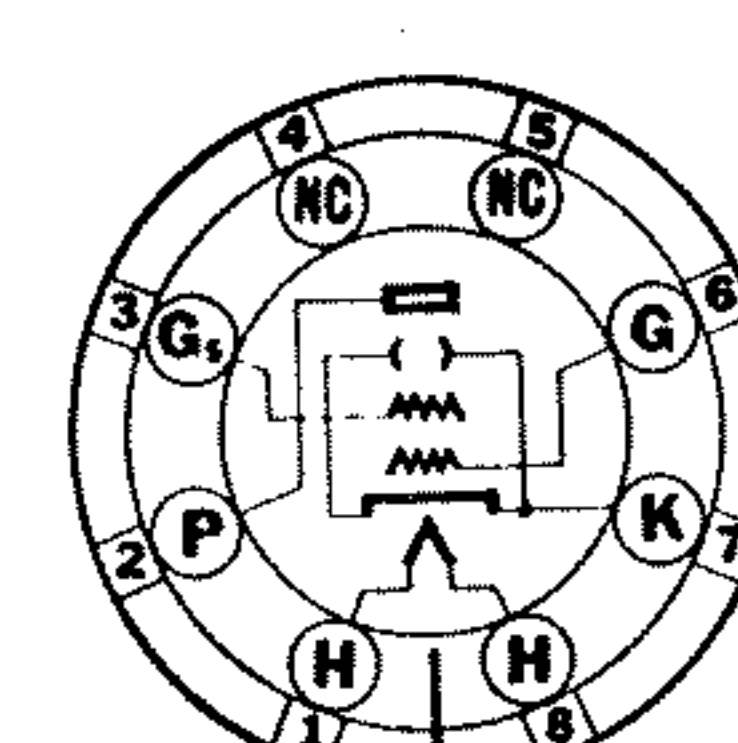
5R



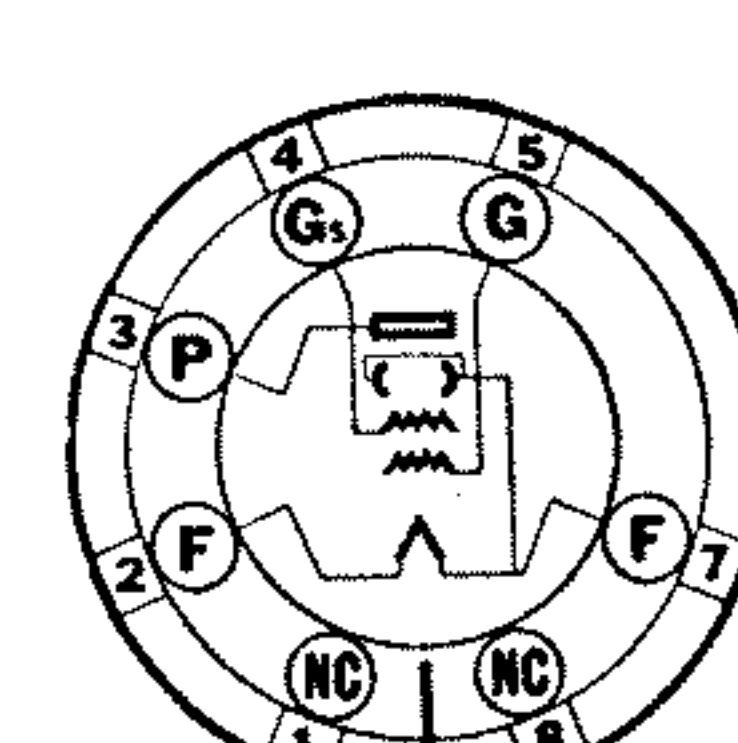
5T



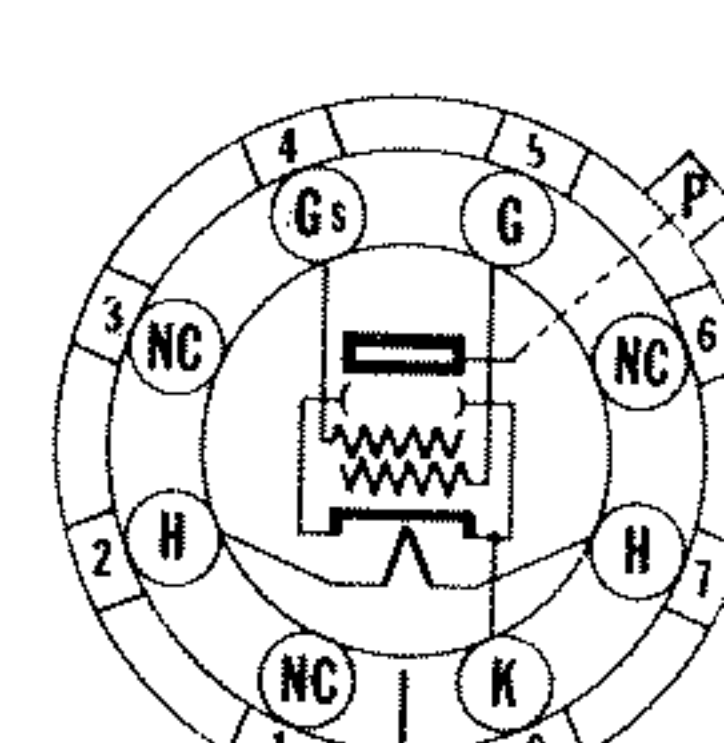
6A



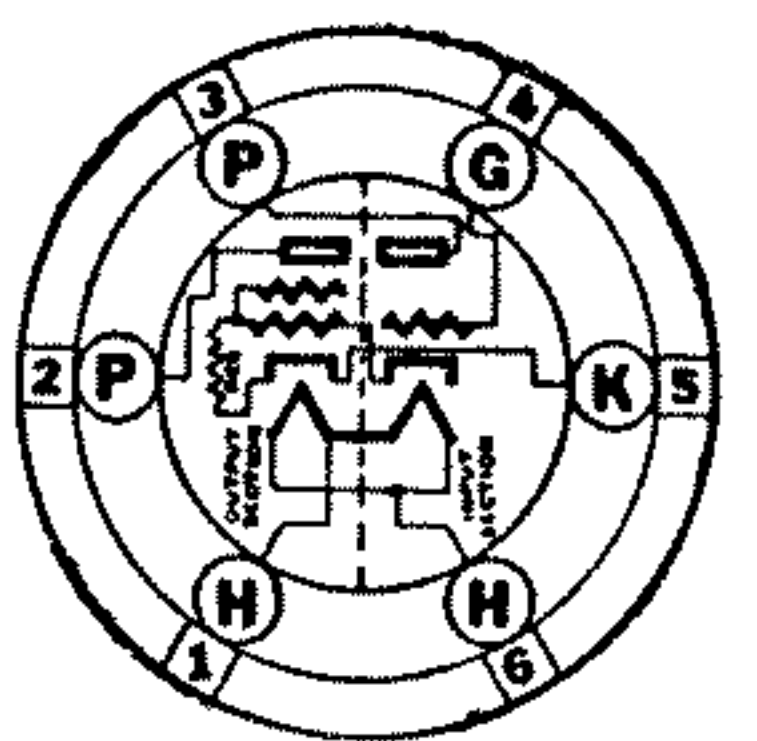
6AA



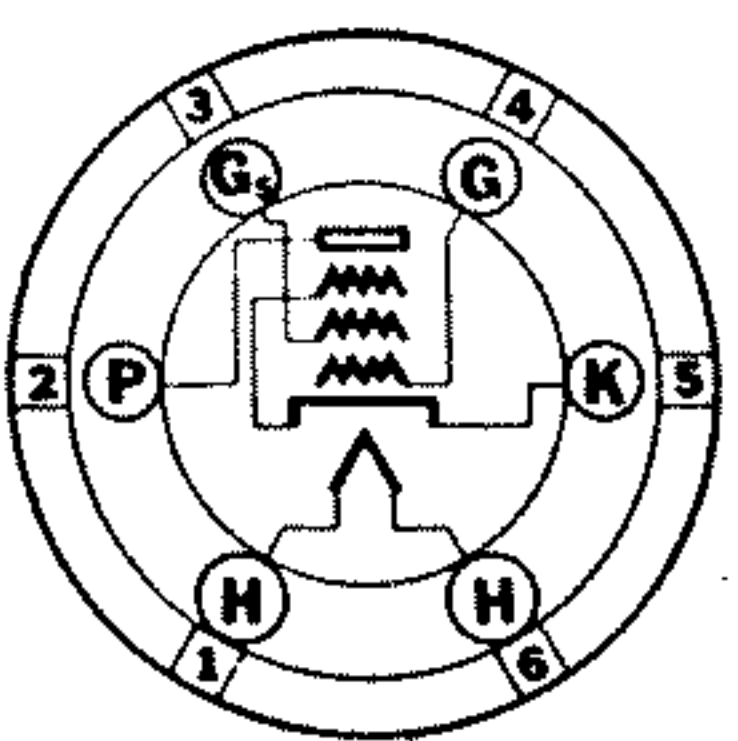
6AF



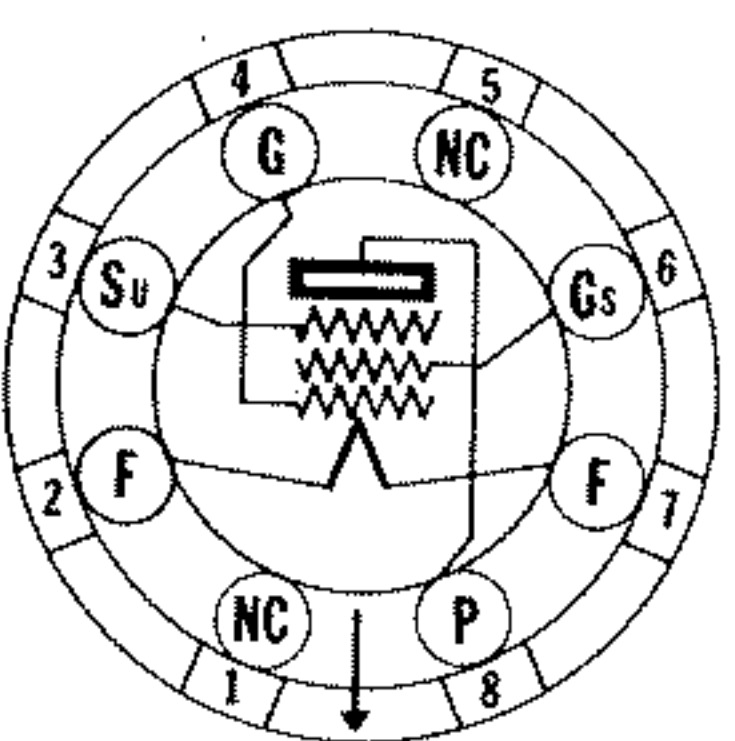
6AM



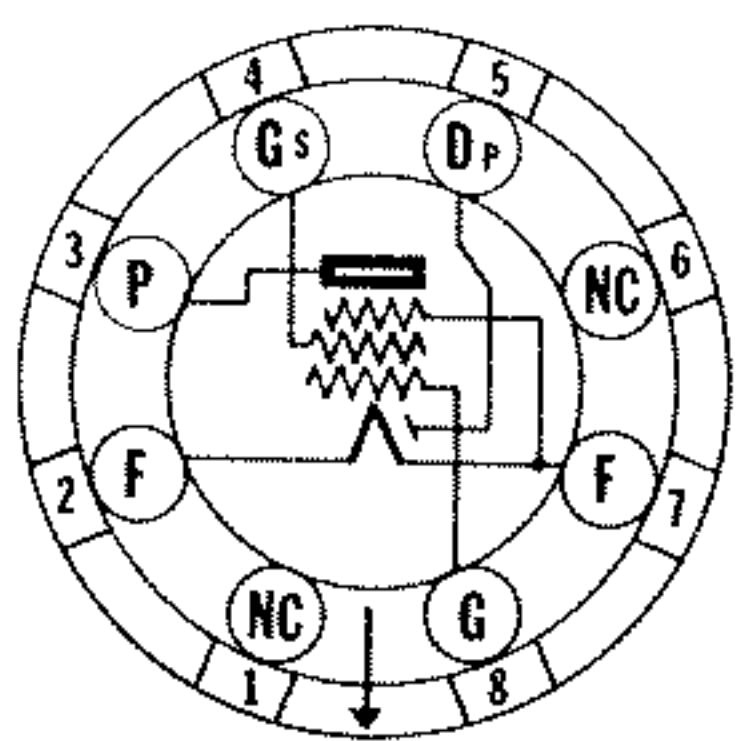
6AS



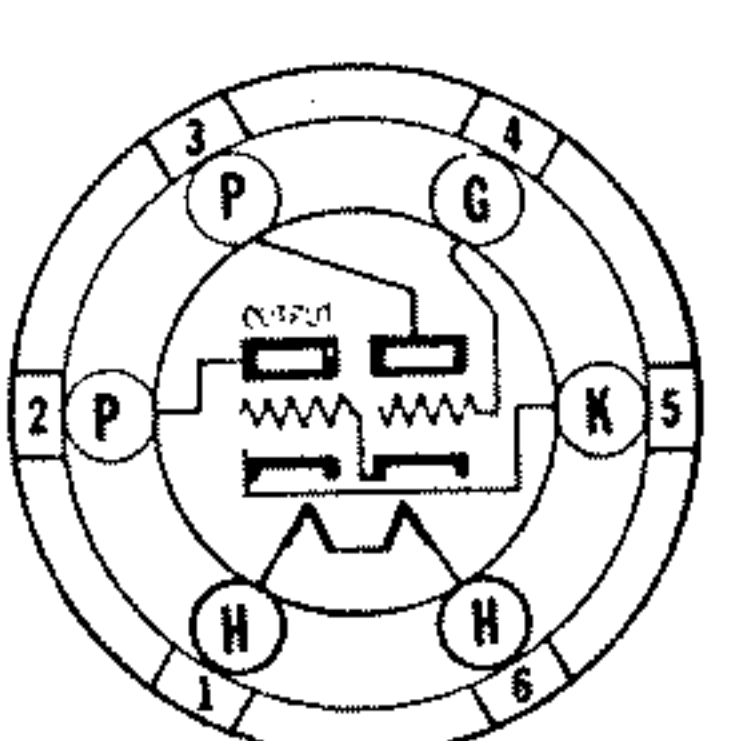
6B



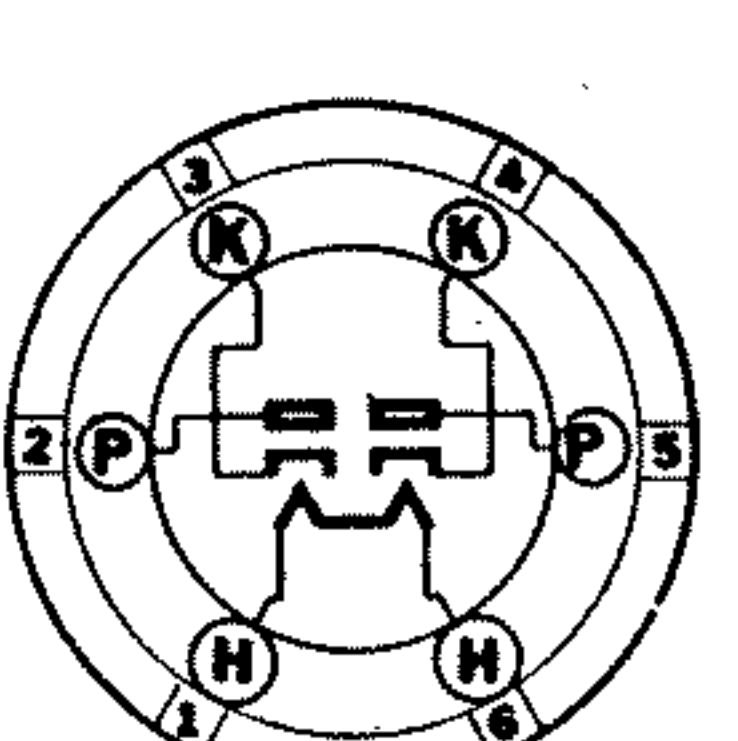
6BF



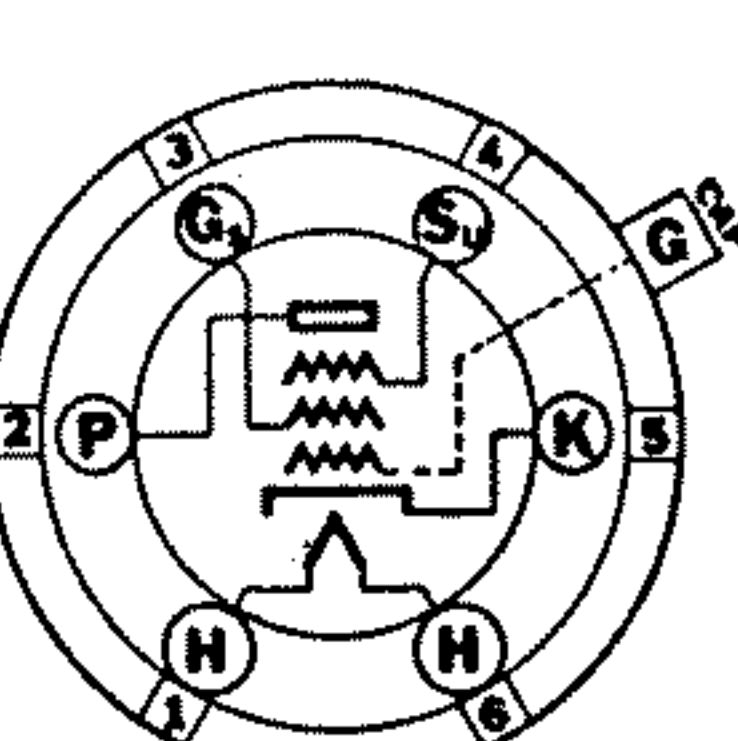
6BE



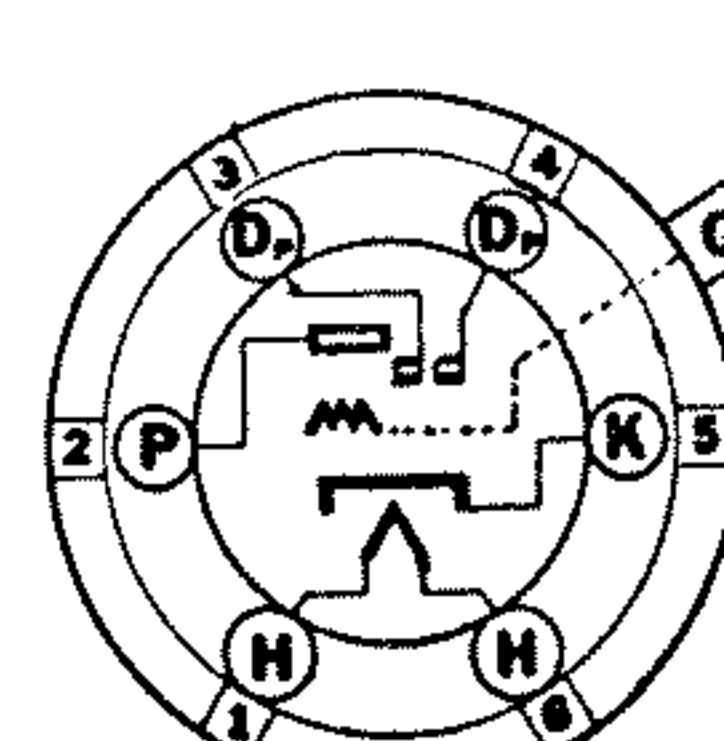
6D



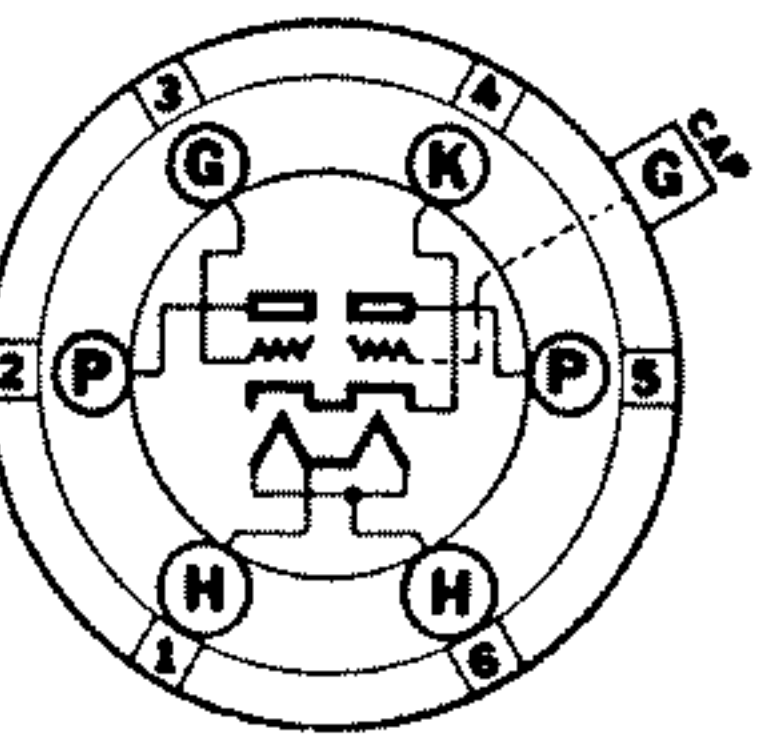
6E



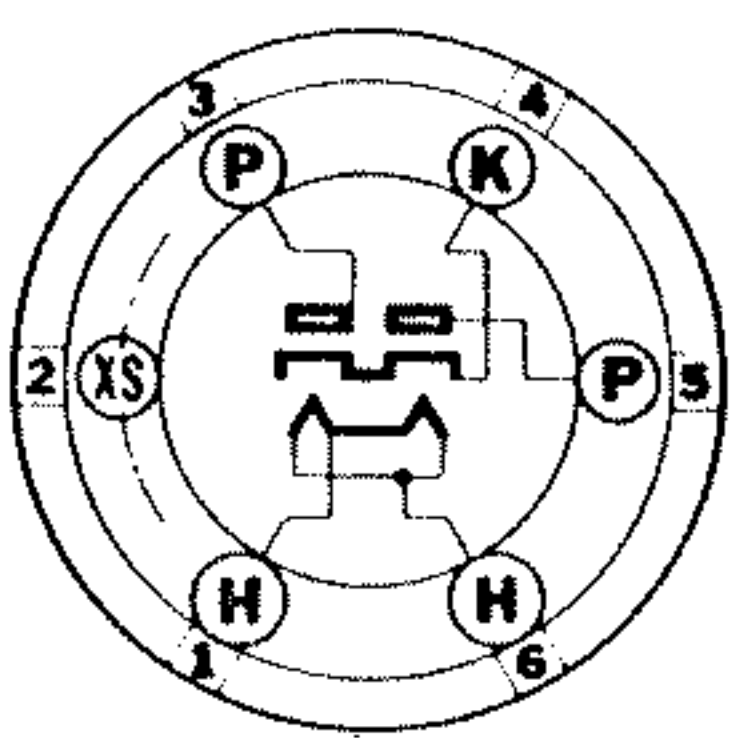
6F



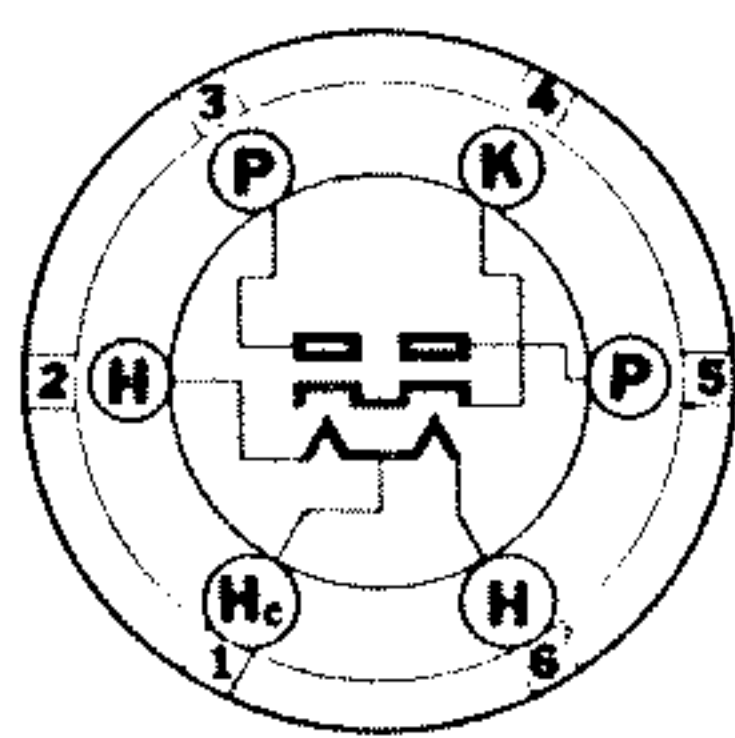
6G



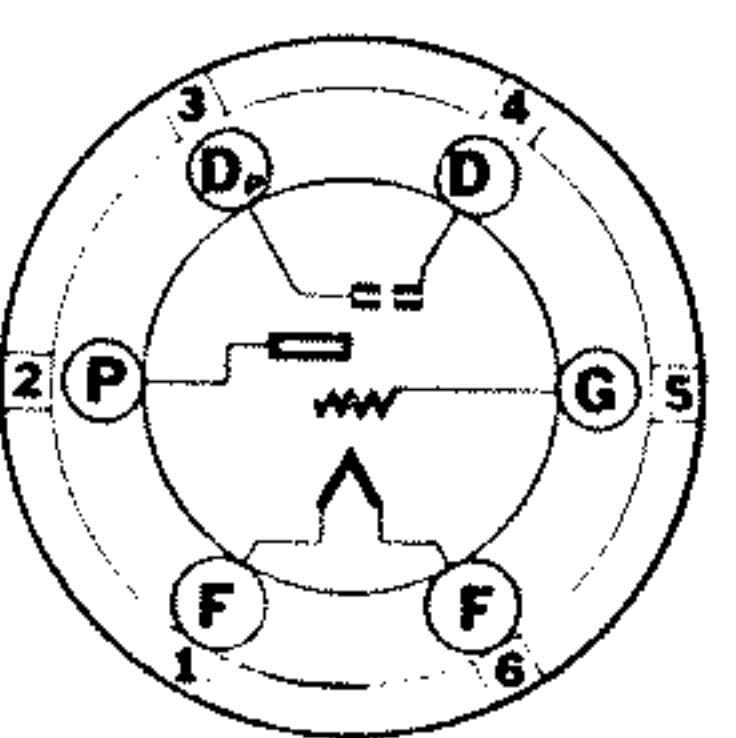
6H



6J



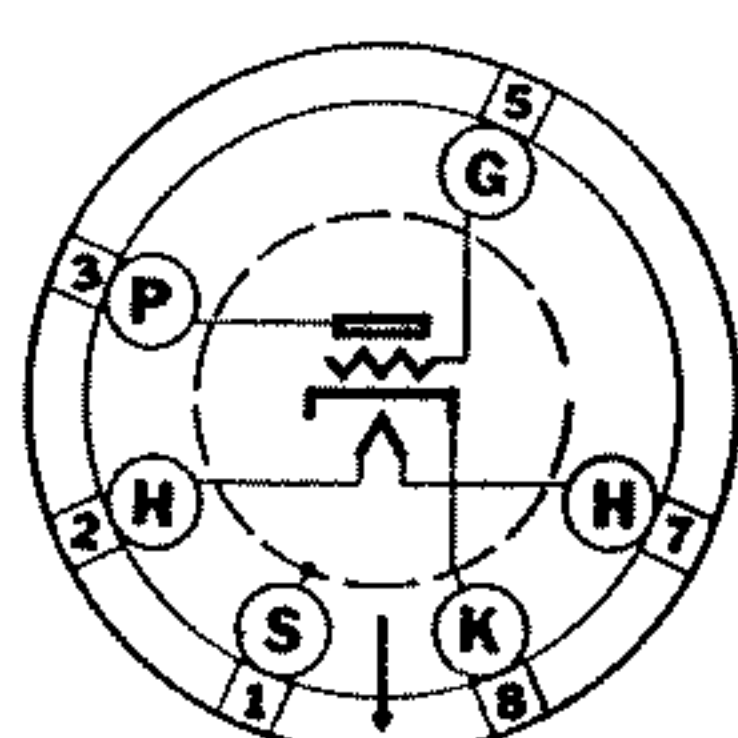
6K



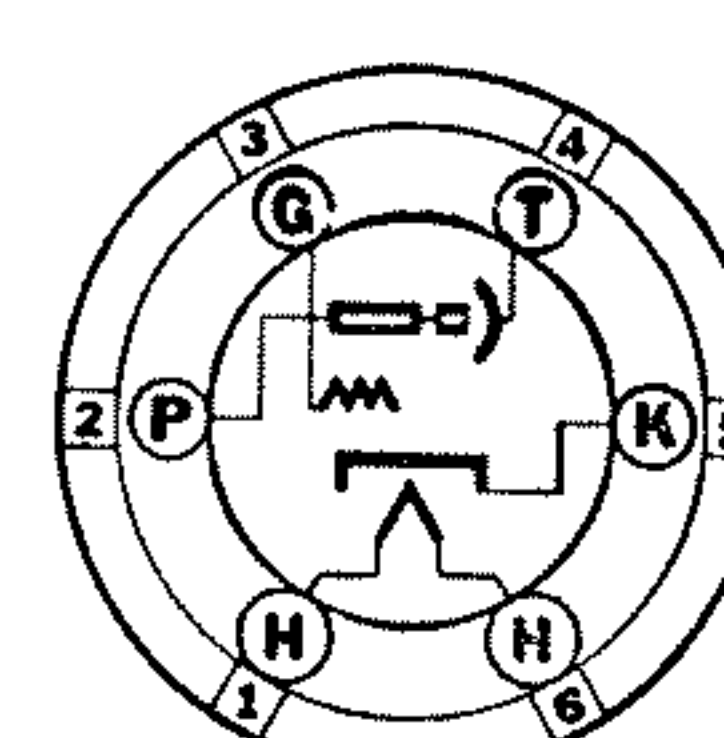
6M

- 6N**
- 1 H
 - 2 P
 - 3 G
 - 4 G
 - 5 K
 - 6 H

- 6P**
- 1 H
 - 2 P
 - 3 G
 - 4 G
 - 5 K
 - 6 H
 - Cap Gs

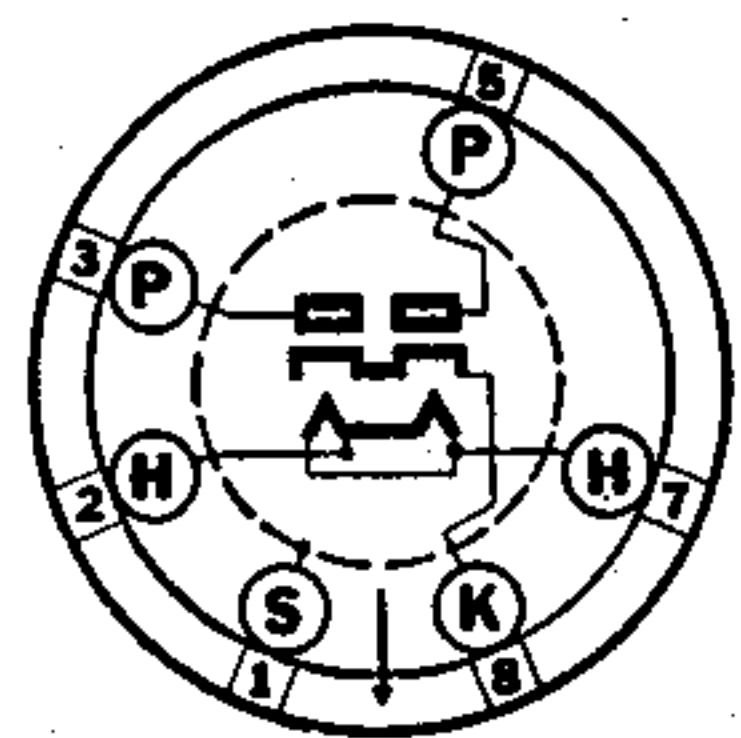


6Q



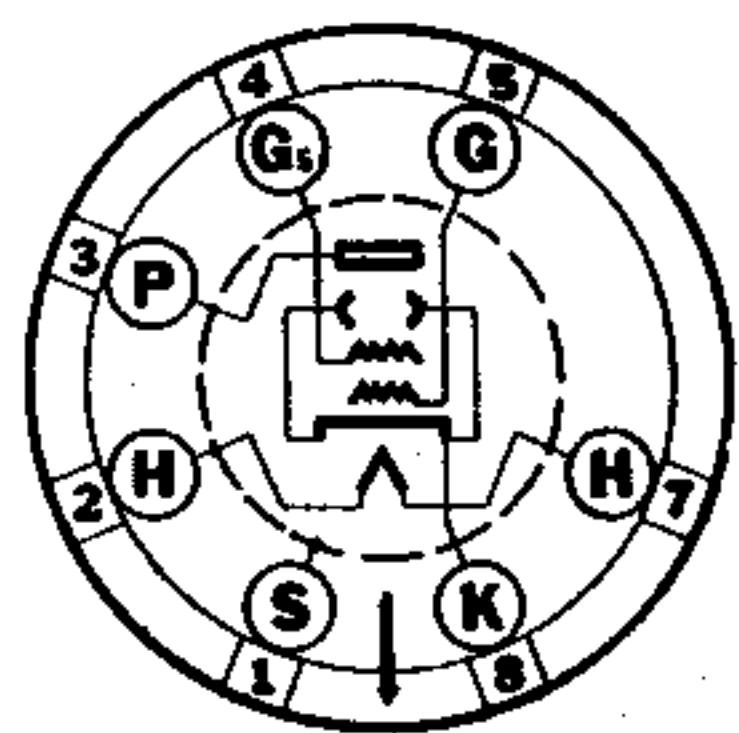
6R

BASE DIAGRAMS FOR SELDOM ENCOUNTERED TYPES—Cont.

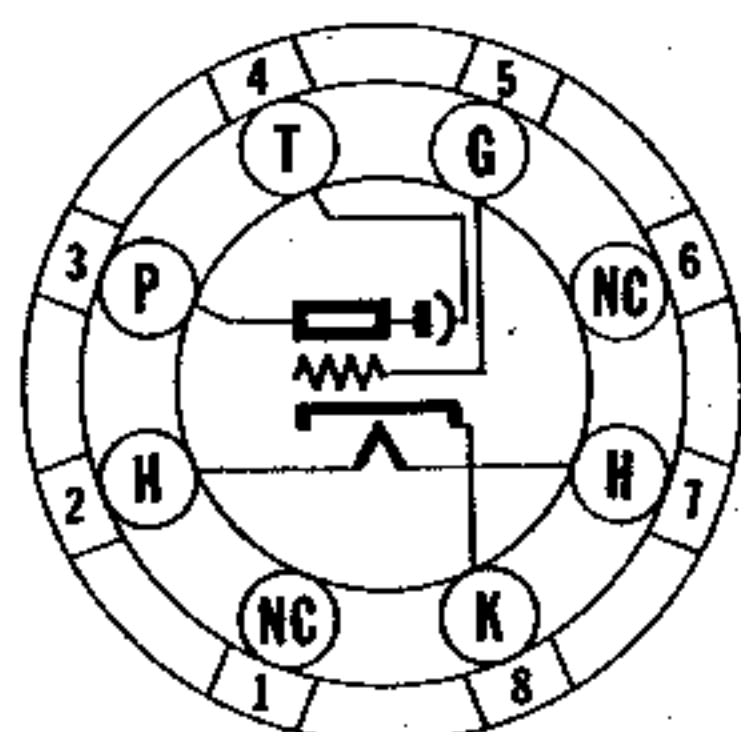


6S

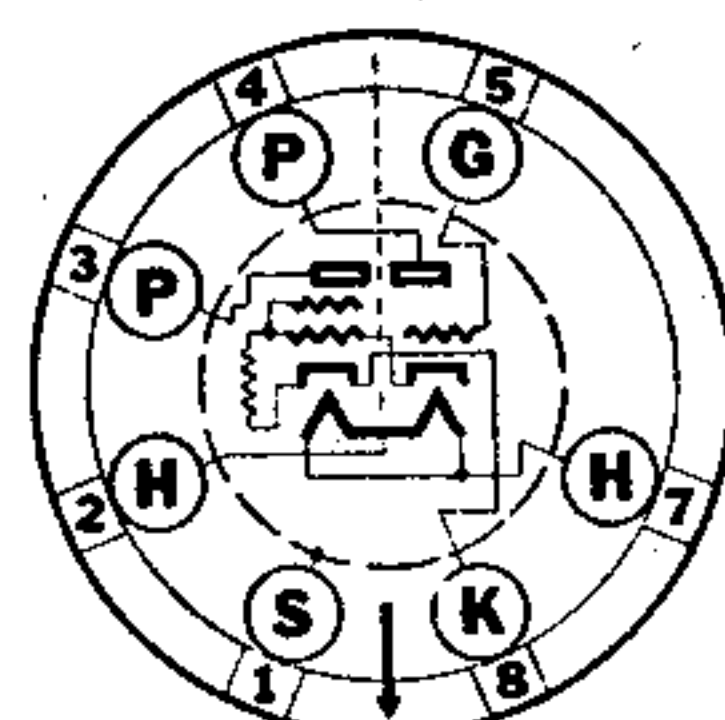
- 6Y**
- 1 NC
 - 2 H
 - 3 P
 - 4 NC
 - 5 D
 - 6 NC
 - 7 H
 - 8 K
 - Cap G



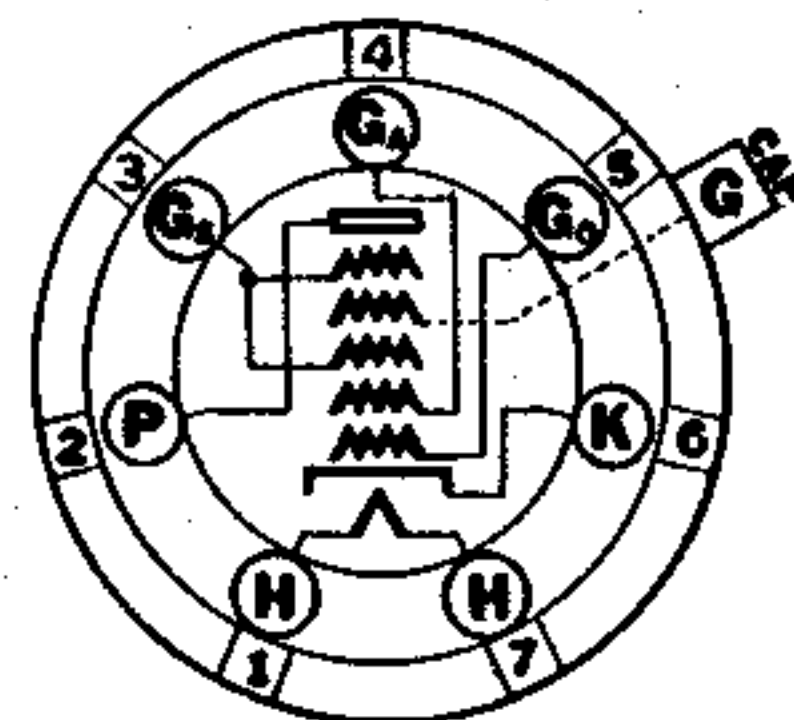
7AC



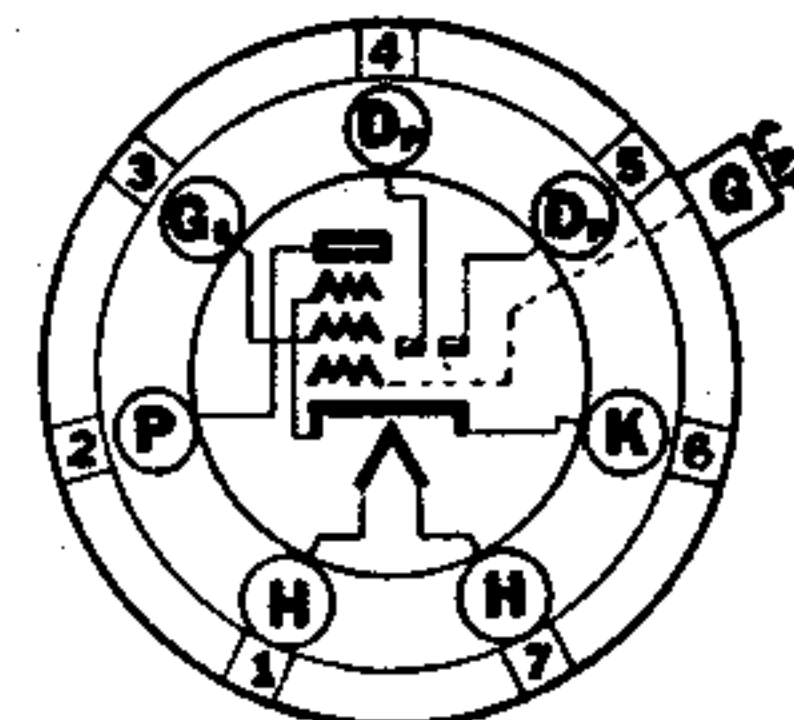
7AL



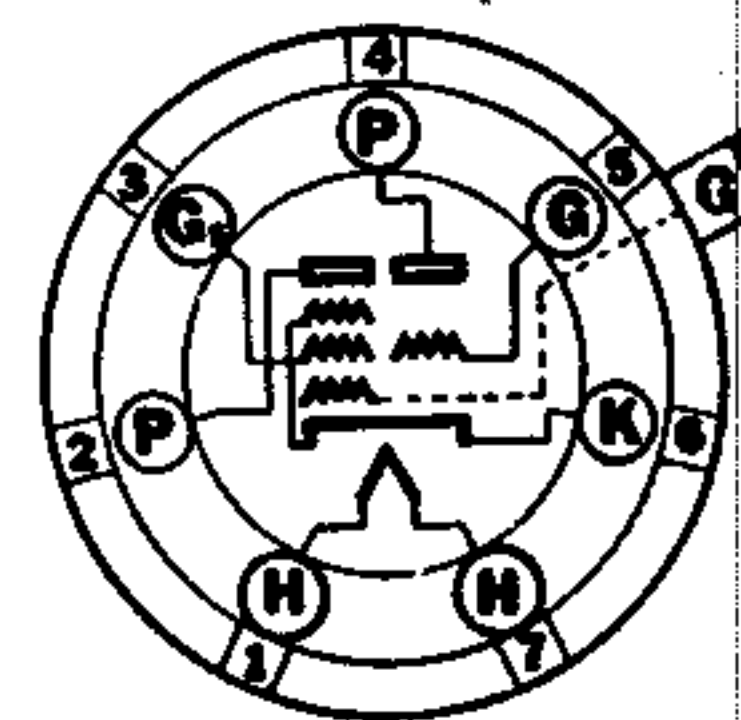
7AU



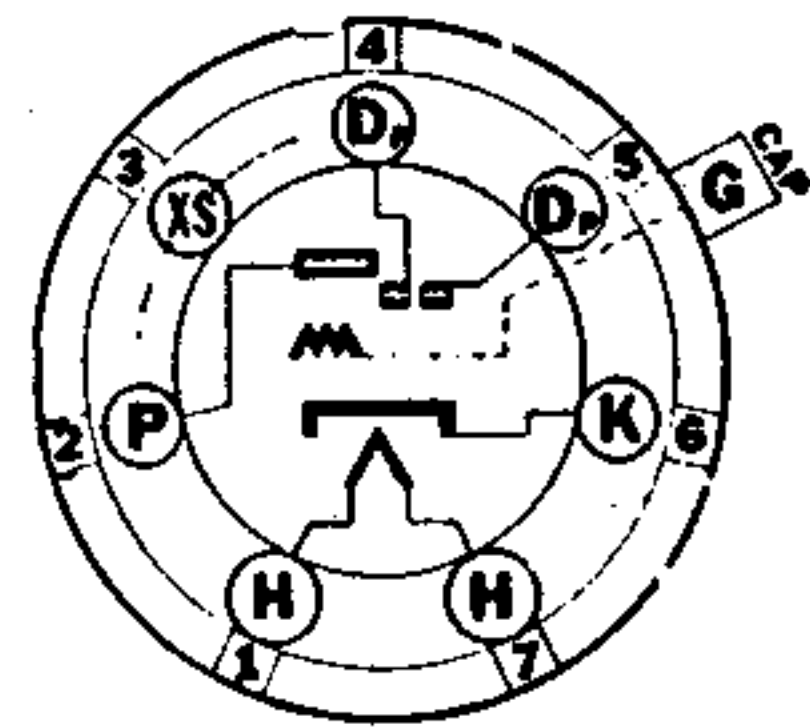
7C



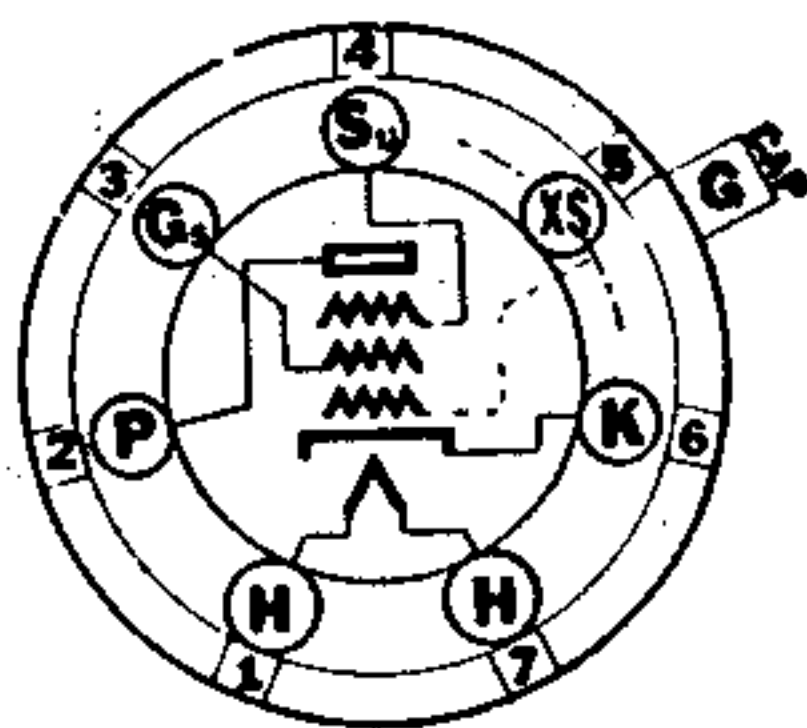
7D



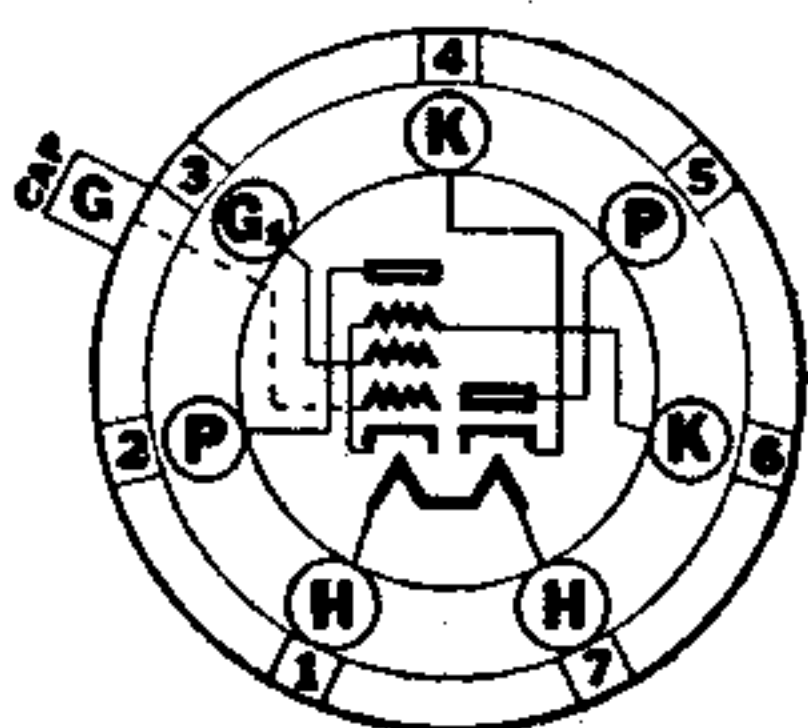
7E



7G



7H



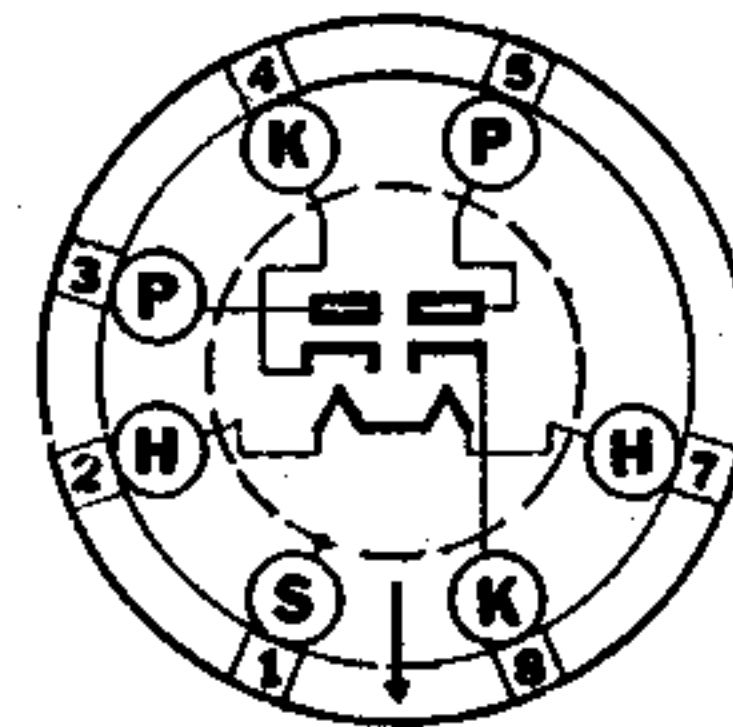
7K

7L

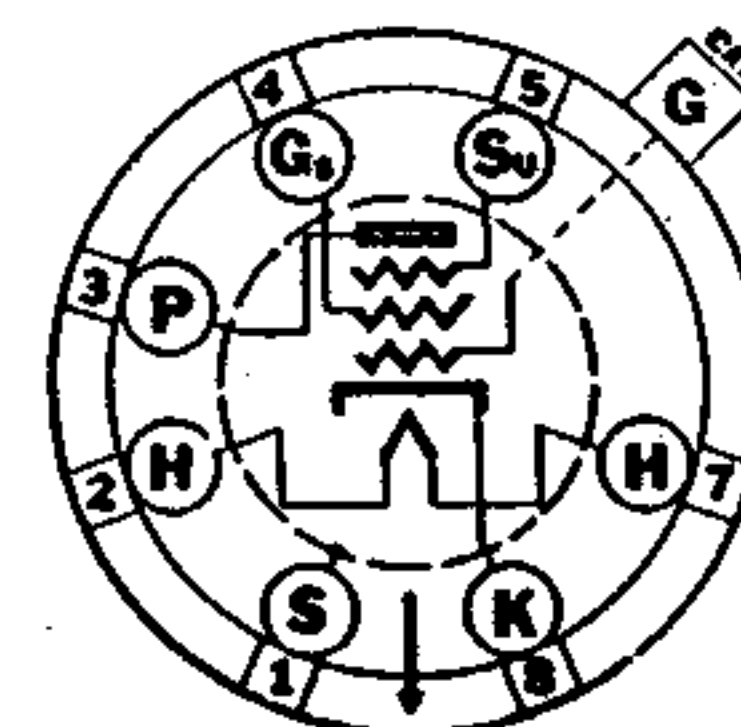
- 1 H
- 2 P2
- 3 K2
- 4 Hc
- 5 K1
- 6 P1
- 7 H

7M

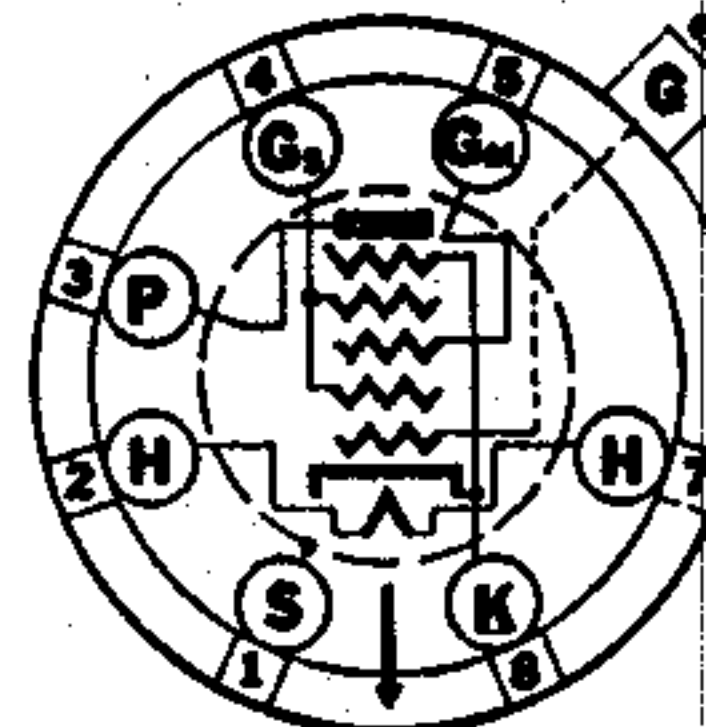
- 1 F
- 2 P
- 3 Gs
- 4 G
- 5 SU
- 6 NC
- 7 F



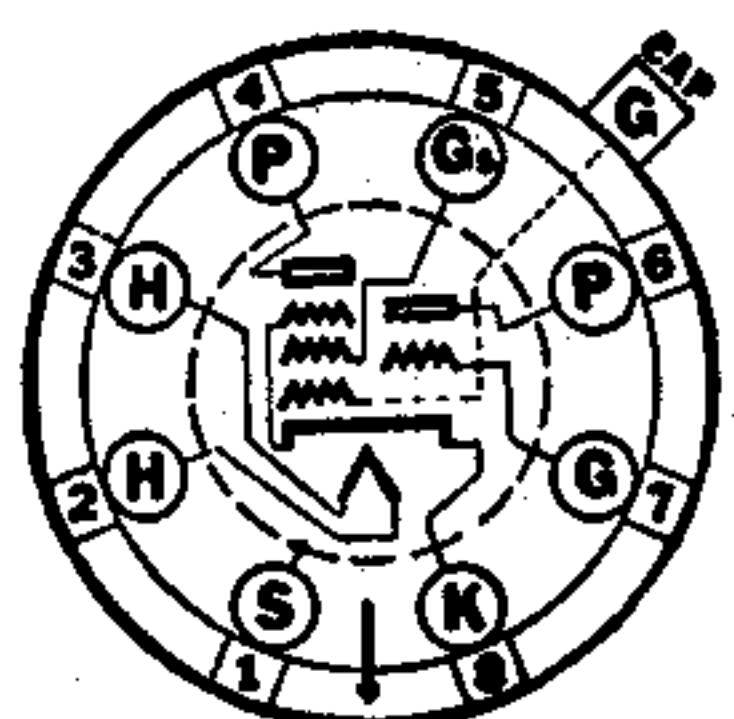
7Q



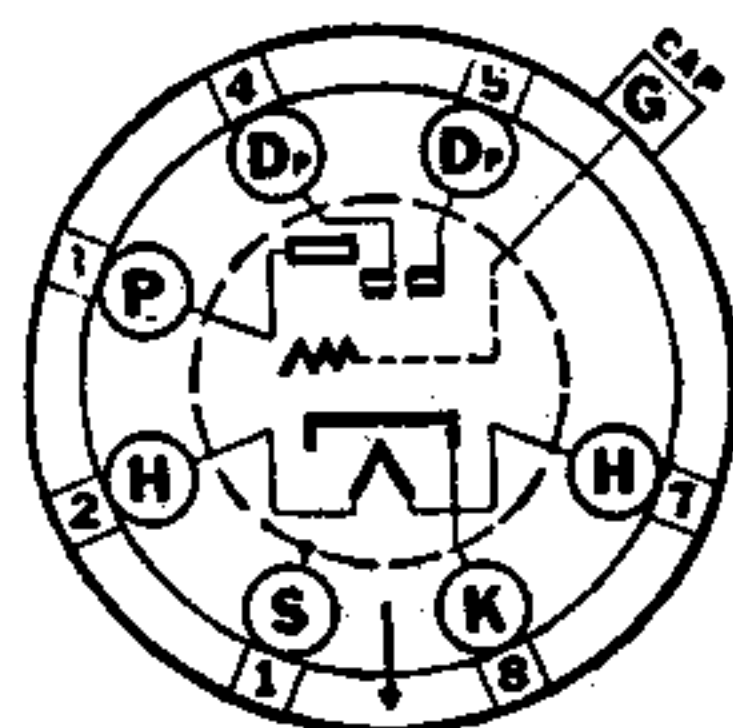
7R



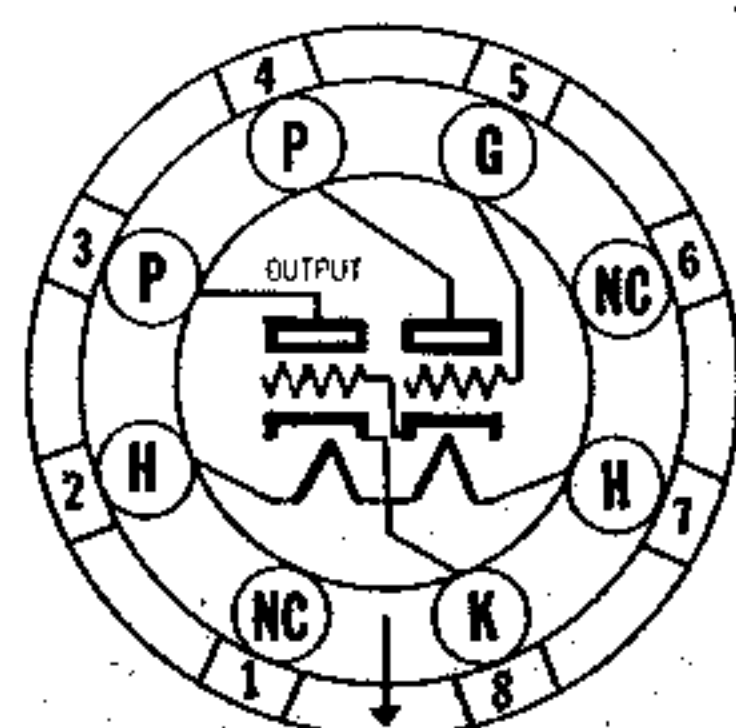
7T



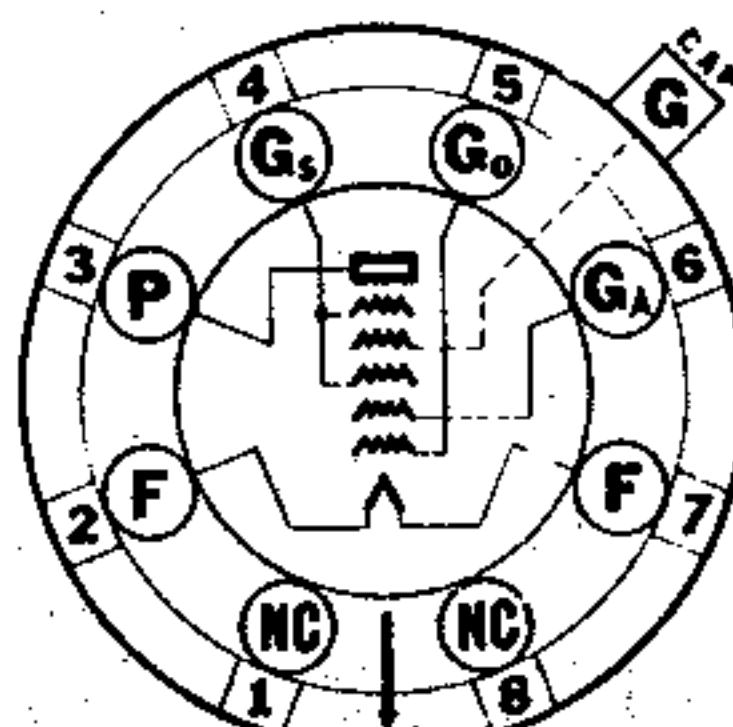
7U



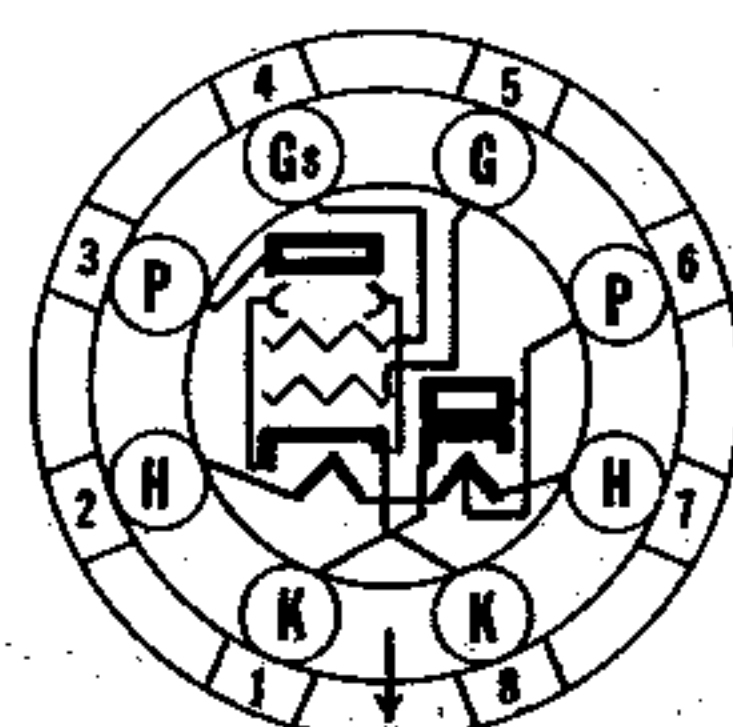
7V



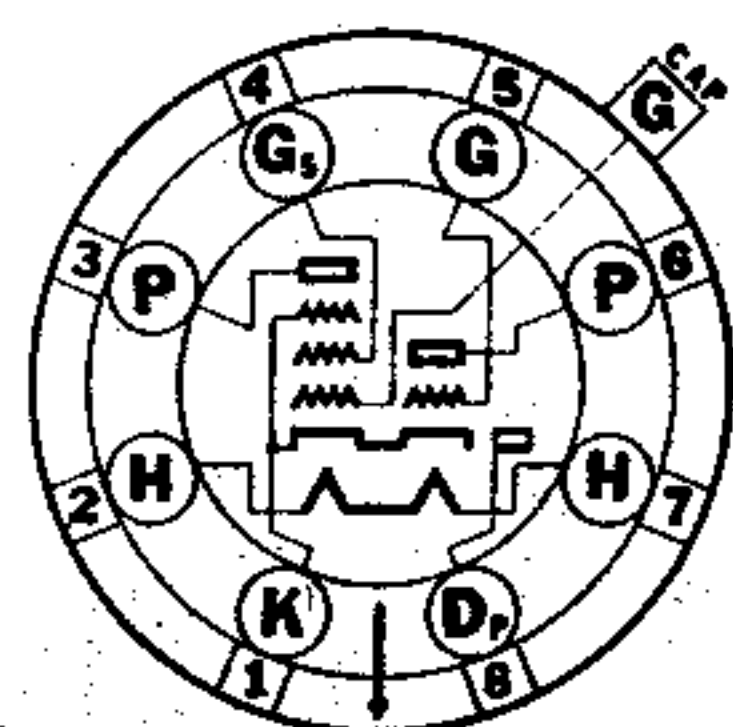
7W



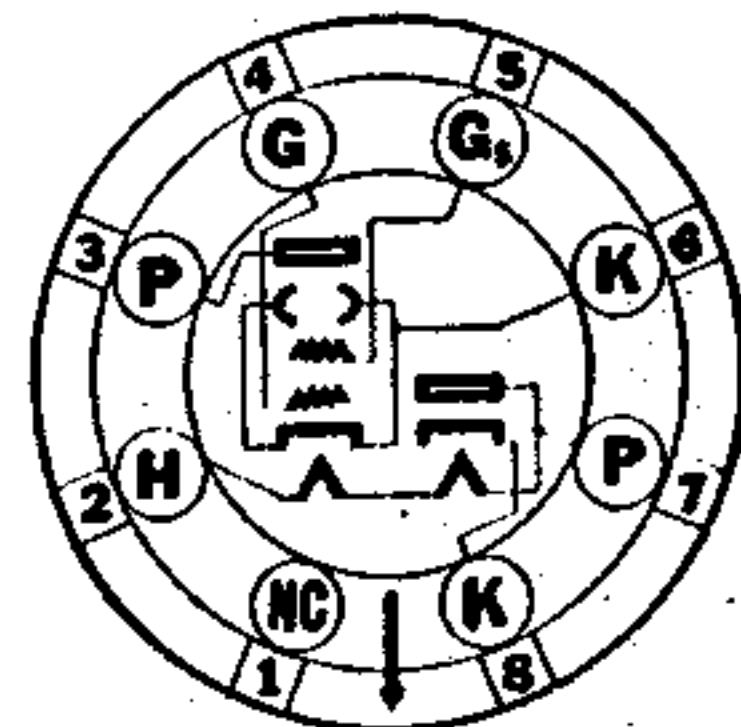
7Z



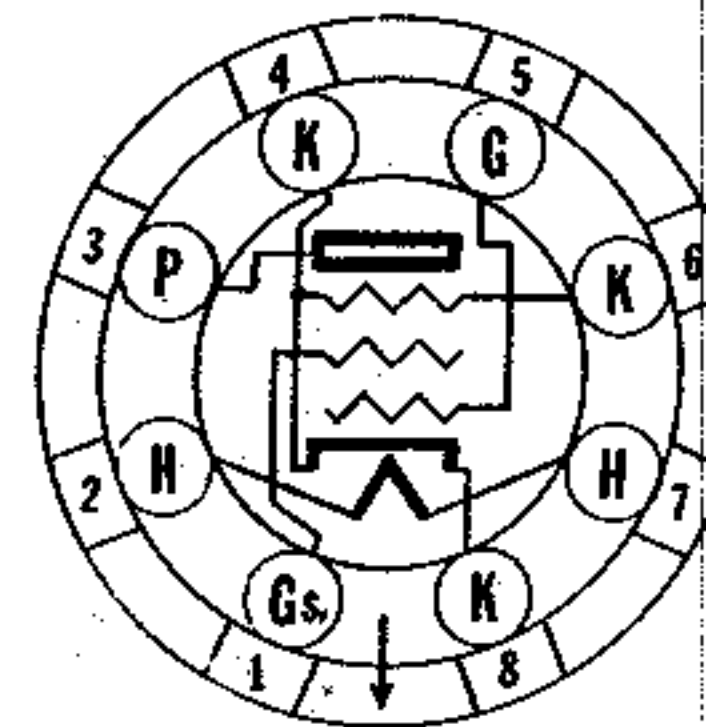
8AB



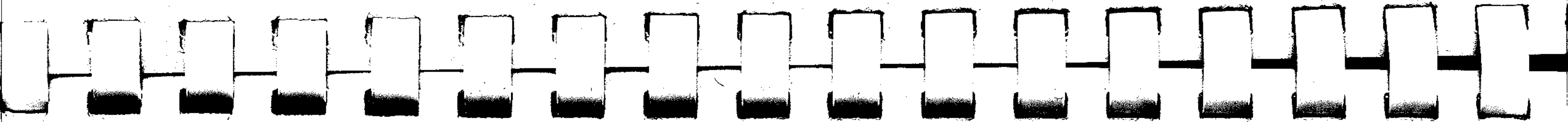
8AF



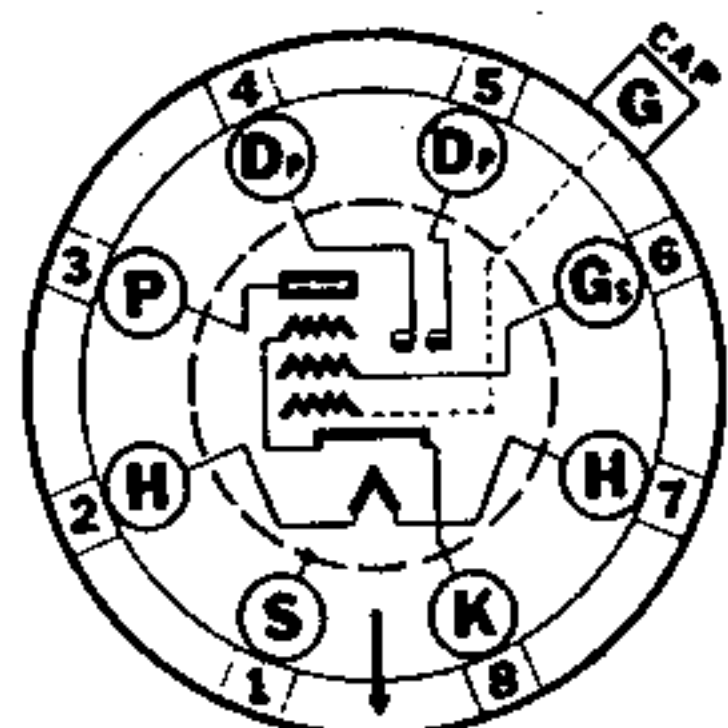
8AV



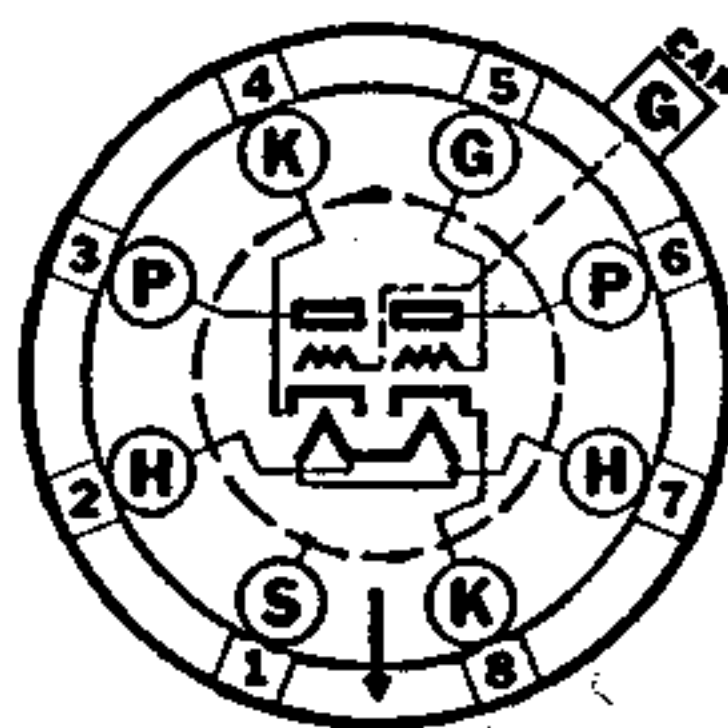
8BO



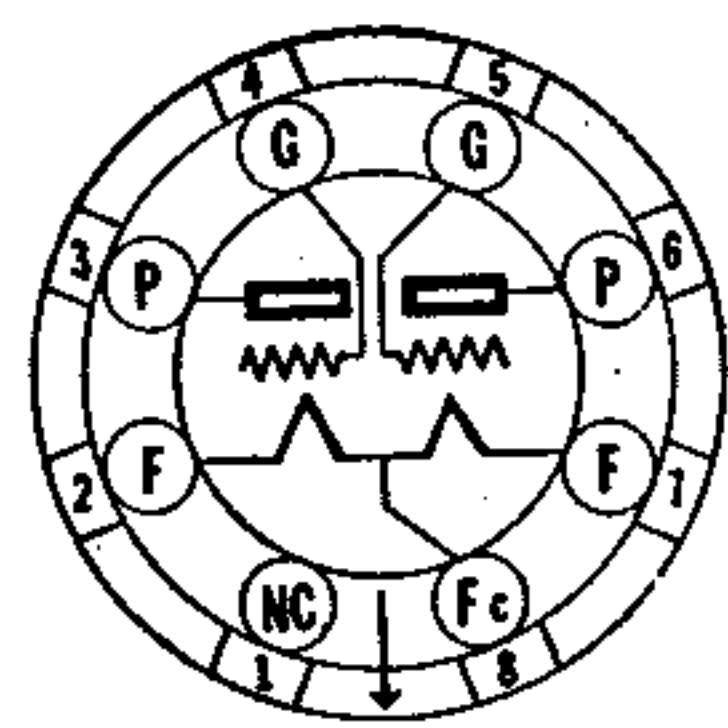
BASE DIAGRAMS FOR SELDOM ENCOUNTERED TYPES—Cont.



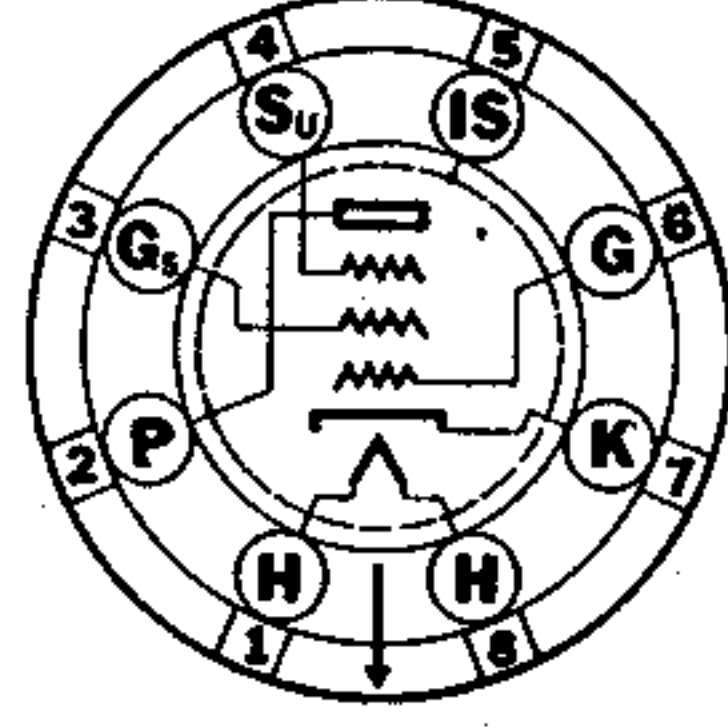
8E



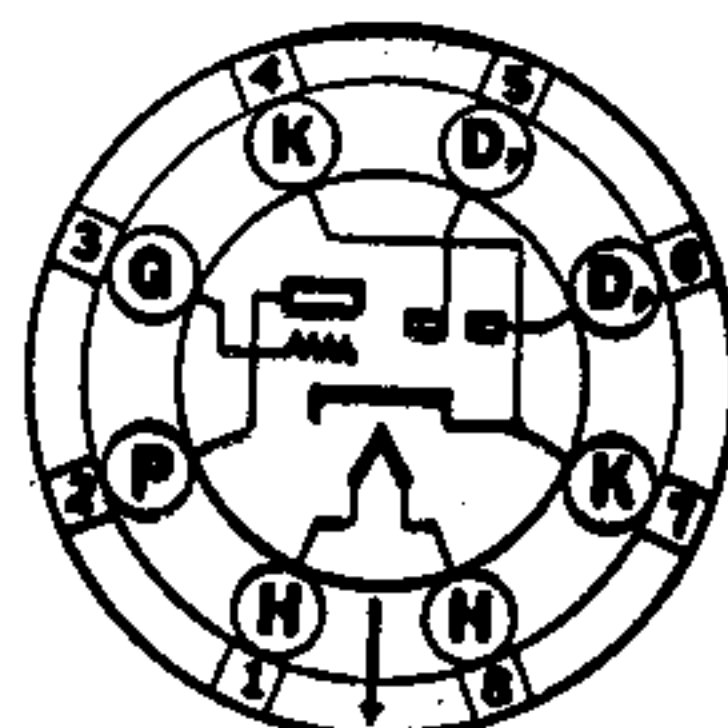
8G



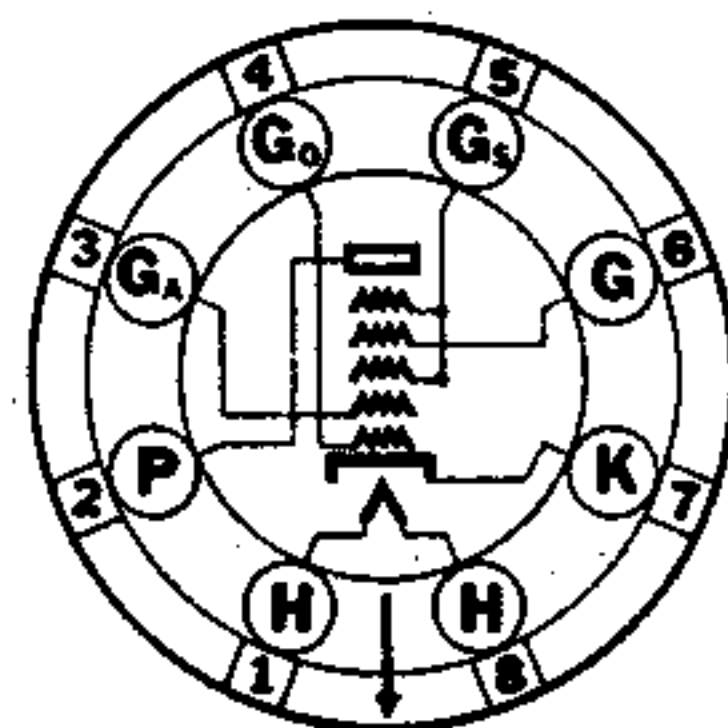
8L



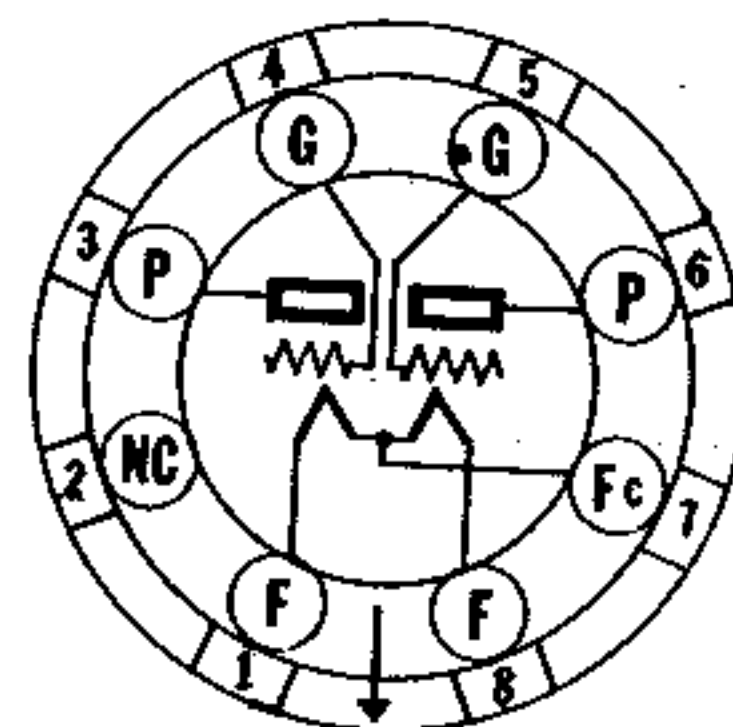
8V



8W



8X



7-BW