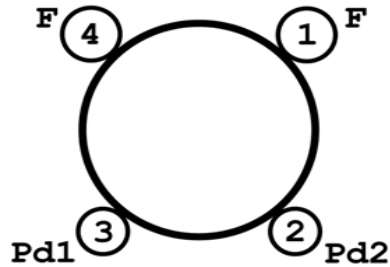


VACUUM TUBE PINOUT SHEETS

<u>Tube</u>	<u>Page</u>	<u>Tube</u>	<u>Page</u>	<u>Tube</u>	<u>Page</u>	<u>Tube</u>	<u>Page</u>
5AR4	5	6J7	13	12FX5	12	7025	21
5AU4	6	6K11	32	12SL7	16	7027A	18
5BR8	26	6L6	10	12SN7	16	7189	24
5BS8	22	6N7	15			7189A	24
5FV8	26	6Q11	32	18GD6A	11	7199	27
5U4	6	6SJ7	20	35Z5	7	7591A	19
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5Z3	2	6V4	30	50L6	10		
		6V6	10	5881	10	ECC81	21
6AU6	11			6072A	21	ECC82	21
6BM8	25	12AT7	21	60FX5	12	ECC83	21
6BQ5	24	12AU6	11	6201	21	ECC832	21
6BR8A	26	12AU7	21	6550	14	ECC88	22
6C4	8	12AX7	21	6679	21	ECL82	25
6C6	9	12AY7	21	6680	21	EL34	17
6CA4	30	12BH7	21	6681	21	EL84	24
6CA7	17	12BV7	23	6922	22	EZ80	30
6CG7	28	12BY7A	23			EZ81	30
6DJ8	22	12DQ7	23			GZ34	5
6EU7	29	12DW7	21			KT66	10
6FQ7	28					KT88	17
6FV8A	26					UCL82	25

5Z3

FULL-WAVE RECTIFIER



PIN DIAGRAM: 4C

WIRING SIDE OF SOCKET IS SHOWN

AMPLIFIER MAKE:

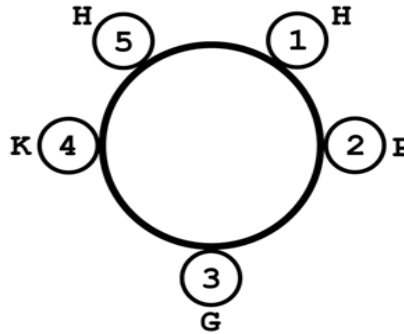
MODEL:

SERIAL NO:

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Filament						
2	d2 - Plate						
3	d1 - Plate						
4	Filament						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.

SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc



PIN DIAGRAM: 5A

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

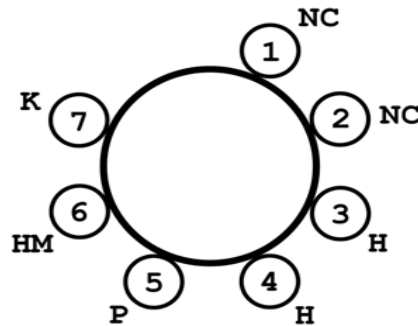
SERIAL NO:

MEDIUM-MU TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Heater						
2	Plate						
3	Grid						
4	Cathode						
5	Heater						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

36AM3



PIN DIAGRAM: 5BQ

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

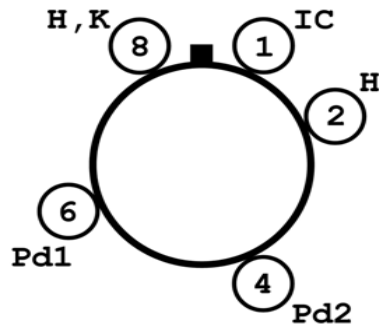
SERIAL NO:

HALF-WAVE RECTIFIER

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	NC						
2	NC						
3	Heater						
4	Heater						
5	Plate						
6	Heater Tap						
7	Cathode						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

5AR4 / GZ34



PIN DIAGRAM: 5DA

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

FULL-WAVE RECTIFIER

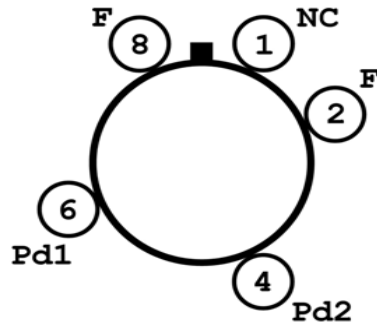
PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	IC						
2	Heater						
4	d2 - Plate						
6	d1 - Plate						
8	Heater, Cathode						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.

SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

5Y3GT
5U4GB
5V3A/5AU4

FULL-WAVE RECTIFIER



PIN DIAGRAM: 5T

WIRING SIDE OF SOCKET IS SHOWN

AMPLIFIER MAKE:

MODEL:

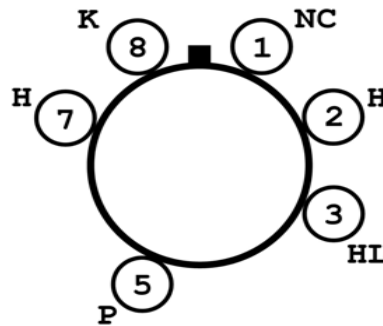
SERIAL NO:

[INDEX](#)

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	NC						
2	Filament						
	NC or OMITTED						
4	d2 - Plate						
	NC or OMITTED						
6	d1 - Plate						
	NC or OMITTED						
8	Filament						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

35Z5GT



PIN DIAGRAM: 6AD

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

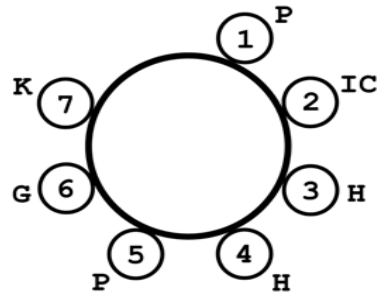
HALF-WAVE RECTIFIER

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	NC or OMITTED						
2	Heater						
3	Heater Tap - Panel Lamp						
5	Plate						
7	Heater						
8	Cathode						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.

SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6C4



PIN DIAGRAM: 6BG

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

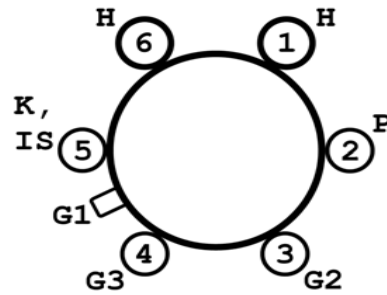
POWER TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Plate						
2	IC						
3	Heater						
4	Heater						
5	Plate						
6	Grid						
7	Cathode						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.

SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6C6



PIN DIAGRAM: 6F

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

SHARP-CUTOFF PENTODE

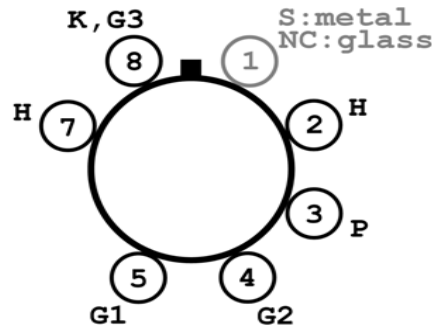
PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Heater						
2	Plate						
3	Screen Grid						
4	Suppressor Grid						
5	Cathode, IS						
6	Heater						
cap	Control Grid						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.

SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6L6, 6L6GC
6V6, 6V6GTA
5881, 50L6
KT66

BEAM POWER TUBE



PIN DIAGRAM: 7AC

WIRING SIDE OF SOCKET IS SHOWN

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

[INDEX](#)

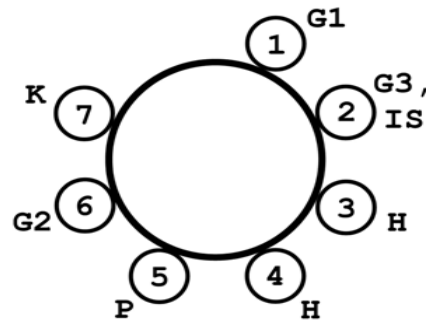
PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	S or NC or OMITTED						
2	Heater						
3	Plate						
4	Screen Grid						
5	Control Grid						
7	Heater						
8	Cathode, Suppressor Grid						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

18GD6A

12AU6

6AU6



PIN DIAGRAM: 7BK

WIRING SIDE OF SOCKET IS SHOWN

AMPLIFIER MAKE:

MODEL:

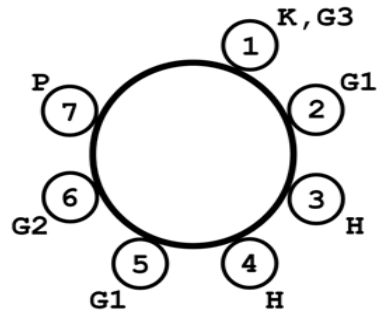
SERIAL NO:

SHARP-CUTOFF PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Control Grid						
2	Suppressor Grid, IS						
3	Heater						
4	Heater						
5	Plate						
6	Screen Grid						
7	Cathode						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

60FX5
12FX5



PIN DIAGRAM: 7CV

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

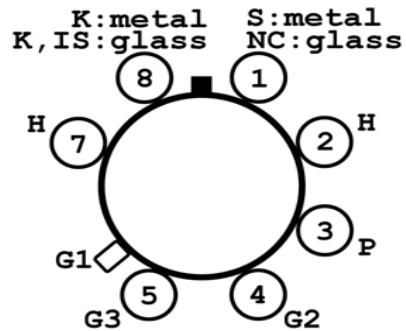
SERIAL NO:

POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Cathode, Suppressor Grid						
2	Control Grid						
3	Heater						
4	Heater						
5	Control Grid						
6	Screen Grid						
7	Plate						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6J7



PIN DIAGRAM: 7R

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

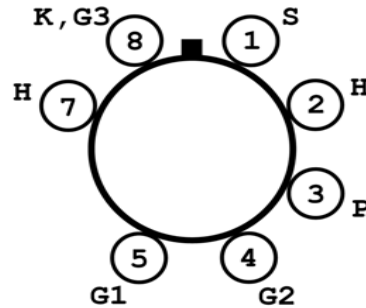
SERIAL NO:

SHARP-CUTOFF PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	S or NC						
2	Heater						
3	Plate						
4	Screen Grid						
5	Suppressor Grid						
7	Heater						
8	Cathode						
cap	Control Grid						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6550



PIN DIAGRAM: 7S

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

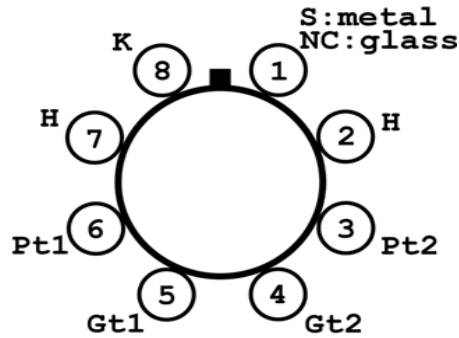
SERIAL NO:

BEAM POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Metal Shell						
2	Heater						
3	Plate						
4	Screen Grid						
5	Control Grid						
7	Heater						
8	Cathode, Suppressor Grid						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6N7



PIN DIAGRAM: 8B

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

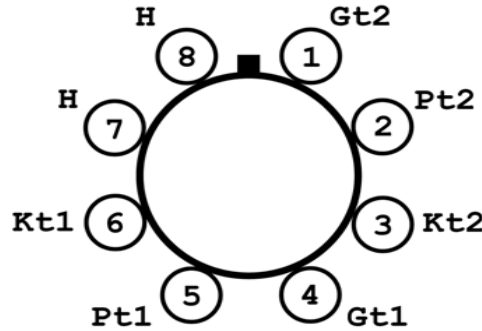
TWIN POWER TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	S or NC						
2	Heater						
3	t2 - Plate						
4	t2 - Grid						
5	t1 - Grid						
6	t1 - Plate						
7	Heater						
8	Cathode						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.

SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6SL7, 12SL7
6SN7, 12SN7



PIN DIAGRAM: 8BD

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

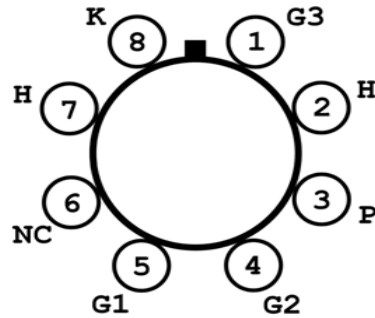
TWIN TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	t2 - Grid						
2	t2 - Plate						
3	t2 - Cathode						
4	t1 - Grid						
5	t1 - Plate						
6	t1 - Cathode						
7	Heater						
8	Heater						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.

SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6CA7 / EL34
KT88



PIN DIAGRAM: 8ET

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

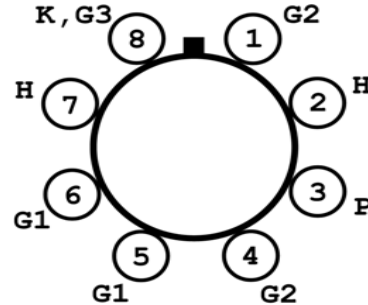
POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Suppressor Grid						
2	Heater						
3	Plate						
4	Screen Grid						
5	Control Grid						
6	NC						
7	Heater						
8	Cathode						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.

SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

7027A



PIN DIAGRAM: 8HY

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

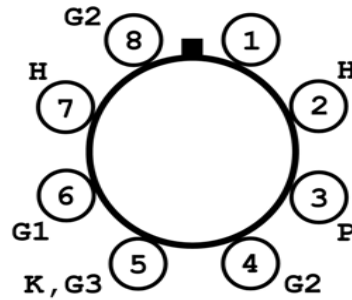
SERIAL NO:

BEAM POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Screen Grid						
2	Heater						
3	Plate						
4	Screen Grid						
5	Control Grid						
6	Control Grid						
7	Heater						
8	Cathode, Suppressor Grid						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

7591A



PIN DIAGRAM: 8KQ

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

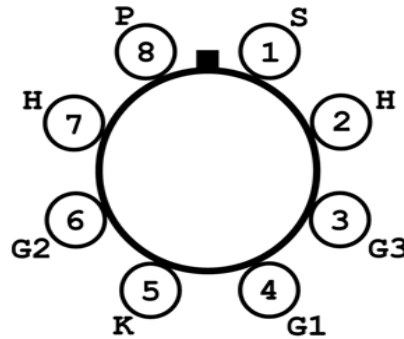
SERIAL NO:

POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1							
2	Heater						
3	Plate						
4	Screen Grid						
5	Cathode, Suppressor Grid						
6	Control Grid						
7	Heater						
8	Screen Grid						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6SJ7



PIN DIAGRAM: 8N

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

SHARP-CUTOFF PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	S						
2	Heater						
3	Suppressor Grid						
4	Control Grid						
5	Cathode						
6	Screen Grid						
7	Heater						
8	Plate						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.

SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

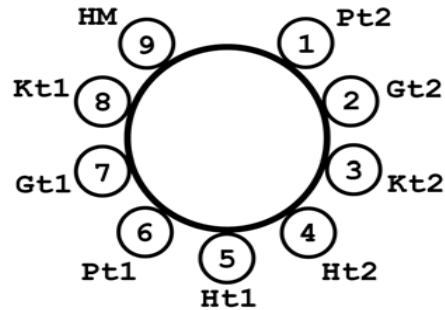
12AT7/ECC81/6679/6201

12AU7/ECC82/6680, 12BH7

12AX7/ECC83/6681/7025

12AY7/6072A, 12DW7/ECC832

TWIN TRIODE



PIN DIAGRAM: 9A

WIRING SIDE OF SOCKET IS SHOWN

AMPLIFIER MAKE:

MODEL:

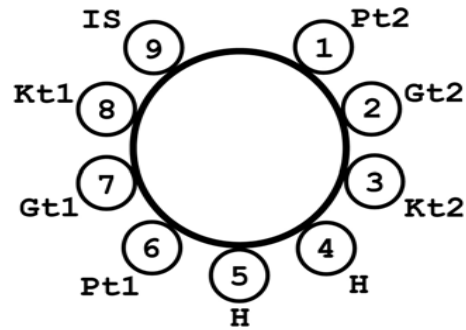
SERIAL NO:

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	t2 - Plate						
2	t2 - Grid						
3	t2 - Cathode						
4	t2 - Heater						
5	t1 - Heater						
6	t1 - Plate						
7	t1 - Grid						
8	t1 - Cathode						
9	Heater common						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6DJ8/ECC88/6922

5BS8



PIN DIAGRAM: 9AJ

WIRING SIDE OF SOCKET IS SHOWN

AMPLIFIER MAKE:

MODEL:

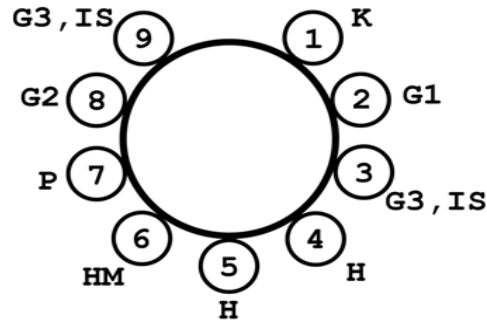
SERIAL NO:

MEDIUM-MU TWIN TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	t2 - Plate						
2	t2 - Grid						
3	t2 - Cathode						
4	t2 - Heater						
5	t1 - Heater						
6	t1 - Plate						
7	t1 - Grid						
8	t1 - Cathode						
9	IS						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

12BY7A/12BV7/12DQ7



PIN DIAGRAM: 9BF

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

SHARP-CUTOFF PENTODE

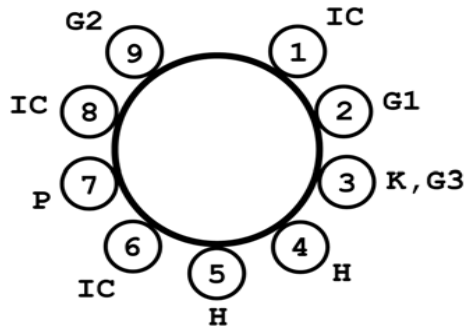
PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Cathode						
2	Control Grid						
3	Suppressor Grid, IS						
4	Heater						
5	Heater						
6	Heater common						
7	Plate						
8	Screen Grid						
9	Suppressor Grid, IS						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6BQ5 / EL84

7189

7189A - pins 1 & 2 connect; pins 6 & 9 connect



PIN DIAGRAM: 9CV

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

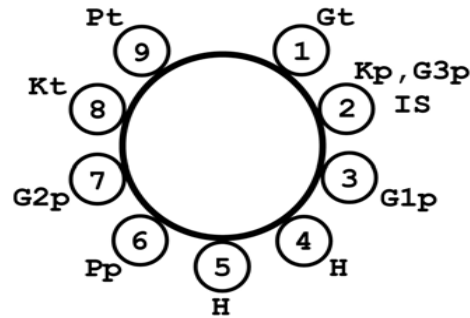
POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	IC						
2	Control Grid						
3	Cathode, Suppressor Grid						
4	Heater						
5	Heater						
6	IC						
7	Plate						
8	IC						
9	Screen Grid						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6BM8/ECL82
50BM8/UCL82

**HIGH-MU TRIODE,
 POWER PENTODE**



PIN DIAGRAM: 9EX

WIRING SIDE OF SOCKET IS SHOWN

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

[INDEX](#)

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	t - Grid						
2	p - Cathode, Supp Grid, IS						
3	p - Control Grid						
4	Heater						
5	Heater						
6	p - Plate						
7	p - Screen Grid						
8	t - Cathode						
9	t - Plate						

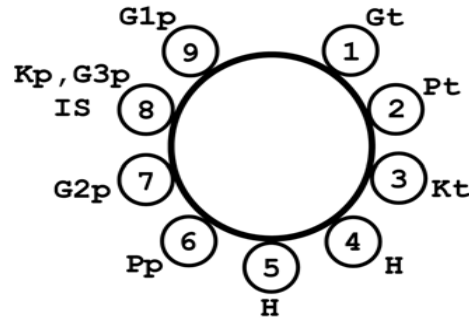
TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6BR8A

6FV8A

5BR8/5FV8

**MEDIUM-MU TRIODE,
SHARP-CUTOFF PENTODE**



PIN DIAGRAM: 9FA

WIRING SIDE OF SOCKET IS SHOWN

AMPLIFIER MAKE:

MODEL:

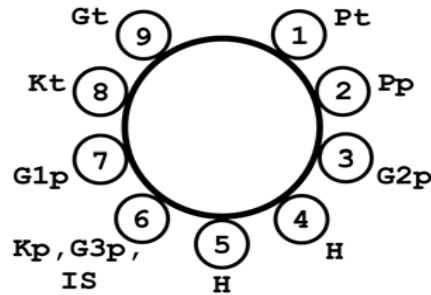
SERIAL NO:

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	t - Grid						
2	t - Plate						
3	t - Cathode						
4	Heater						
5	Heater						
6	p - Plate						
7	p - Screen Grid						
8	p - Cathode, Supp Grid, IS						
9	p - Control Grid						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

7199

MEDIUM-MU TRIODE, SHARP-CUTOFF PENTODE



PIN DIAGRAM: 9JT

WIRING SIDE OF SOCKET IS SHOWN

AMPLIFIER MAKE:

MODEL:

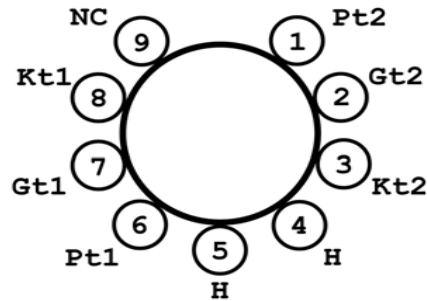
SERIAL NO:

[INDEX](#)

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	t - Plate						
2	p - Plate						
3	p - Screen Grid						
4	Heater						
5	Heater						
6	p - Cathode, Supp Grid, IS						
7	p - Control Grid						
8	t - Cathode						
9	t - Grid						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6FQ7
6CG7



PIN DIAGRAM: 9LP

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

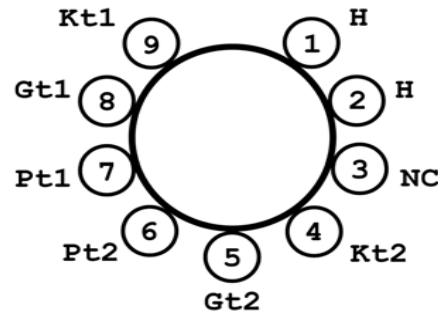
SERIAL NO:

MEDIUM-MU TWIN TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	t2 - Plate						
2	t2 - Grid						
3	t2 - Cathode						
4	Heater						
5	Heater						
6	t1 - Plate						
7	t1 - Grid						
8	t1 - Cathode						
9	NC						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6EU7



PIN DIAGRAM: 9LS

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

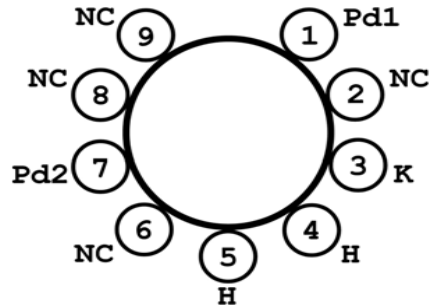
SERIAL NO:

TWIN TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Heater						
2	Heater						
3	NC						
4	t2 - Cathode						
5	t2 - Grid						
6	t2 - Plate						
7	t1 - Plate						
8	t1 - Grid						
9	t1 - Cathode						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6CA4 / EZ81
6V4 / EZ80



PIN DIAGRAM: 9M

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

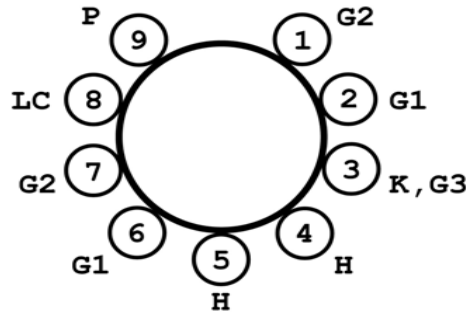
MODEL:

SERIAL NO:

FULL-WAVE RECTIFIER

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	d1 - Plate						
2	NC						
3	Cathode						
4	Heater						
5	Heater						
6	NC						
7	d2 - Plate						
8	NC						
9	NC						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc



PIN DIAGRAM: 9RW

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

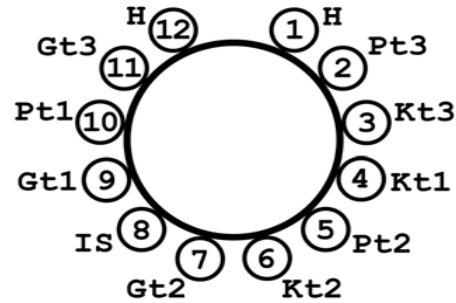
SERIAL NO:

POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Screen Grid						
2	Control Grid						
3	Cathode, Suppressor Grid						
4	Heater						
5	Heater						
6	Control Grid						
7	Screen Grid						
8	Limited Connection						
9	Plate						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.
 SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc

6K11/6Q11



PIN DIAGRAM: 12BY

WIRING SIDE OF SOCKET IS SHOWN

[INDEX](#)

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

THREE-UNIT TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		<i>a:</i>	<i>b:</i>	<i>c:</i>	<i>d:</i>	<i>e:</i>	<i>f:</i>
1	Heater						
2	t3 - Plate						
3	t3 - Cathode						
4	t1 - Cathode						
5	t2 - Plate						
6	t2 - Cathode						
7	t2 - Grid						
8	IS						
9	t1 - Grid						
10	t1 - Plate						
11	t3 - Grid						
12	Heater						

TERMINAL ABBREVIATIONS: H = Heater End (Unpolarized). HM = Heater Tap. IC = Do Not Use (Internal Connection). IS = Internal Shield (Electrostatic). K = Cathode. NC = No Internal Connection. S = Metal Shell.

SUBSCRIPTS FOR MULTI-UNIT TUBES: b = Beam Power Unit. d = Diode Unit. hp = Heptode Unit. hx = Hexode Unit. p = Pentode Unit. t = Triode Unit. tr = Tetrode Unit. 1, 2, 3, etc. = No. 1, No. 2, No. 3, etc