bustedgear.com

VACUUM TUBE PINOUT SHEETS

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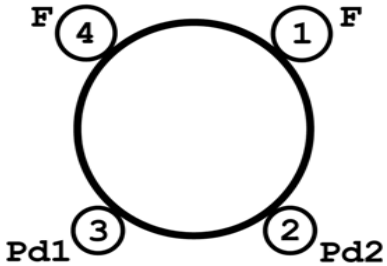
5Z3



PIN DIAGRAM: 4C

WIRING SIDE OF SOCKET IS SHOWN

INDEX

AMPLIFIER MAKE:

MODEL:

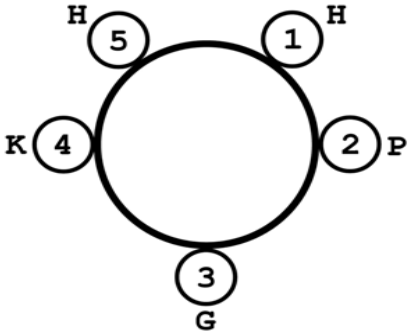
SERIAL NO:

FULL-WAVE RECTIFIER

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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

76



PIN DIAGRAM: 5A

WIRING SIDE OF SOCKET IS SHOWN

INDEX

AMPLIFIER MAKE:

MODEL:

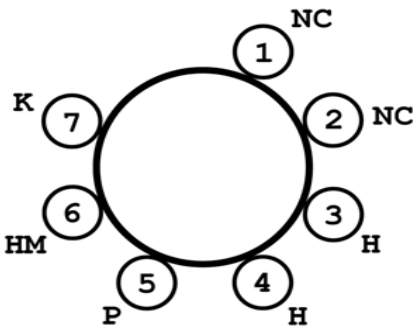
SERIAL NO:

MEDIUM-MU TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

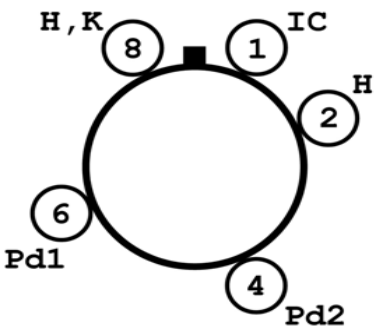
SERIAL NO:

HALF-WAVE RECTIFIER

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

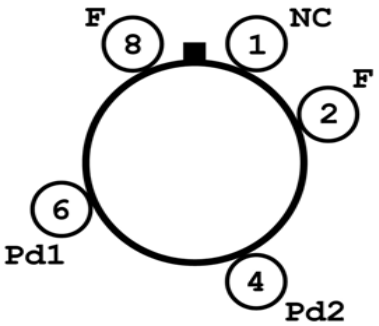
SERIAL NO:

FULL-WAVE RECTIFIER

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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



PIN DIAGRAM: 5T

WIRING SIDE OF SOCKET IS SHOWN

INDEX

AMPLIFIER MAKE:

MODEL:

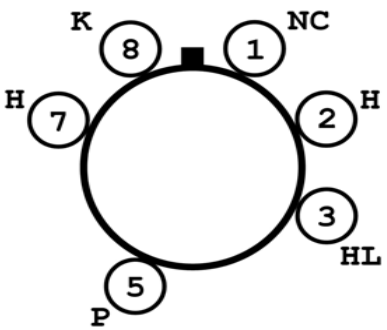
SERIAL NO:

FULL-WAVE RECTIFIER

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

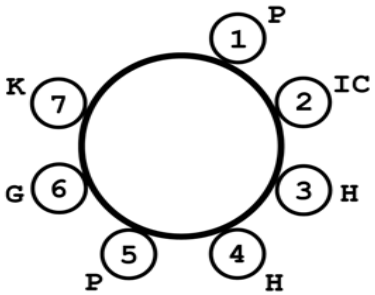
SERIAL NO:

HALF-WAVE RECTIFIER

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

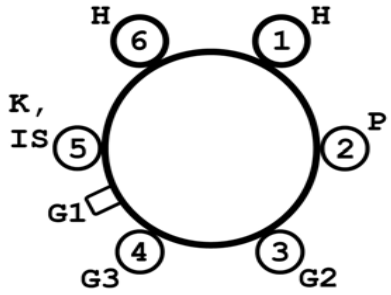
SERIAL NO:

POWER TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

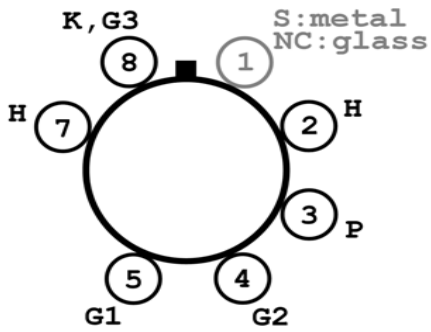
SHARP-CUTOFF PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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

INDEX

AMPLIFIER MAKE:

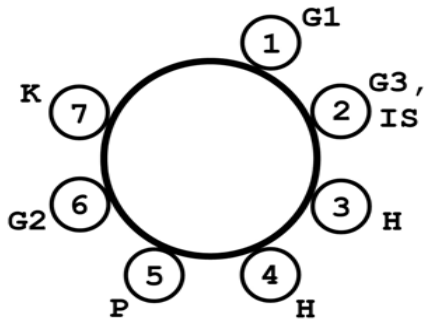
MODEL:

SERIAL NO:

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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

INDEX

AMPLIFIER MAKE:

MODEL:

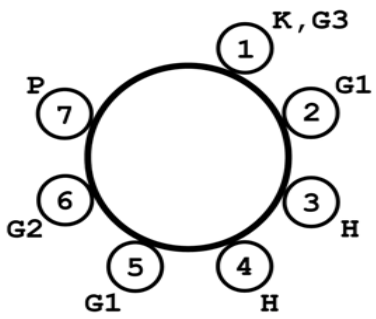
SERIAL NO:

SHARP-CUTOFF PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

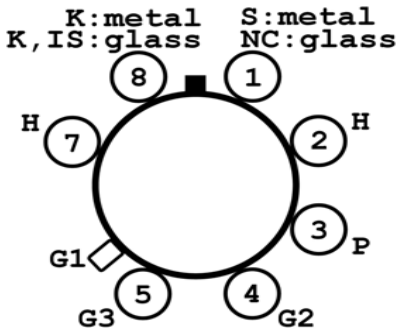
SERIAL NO:

POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

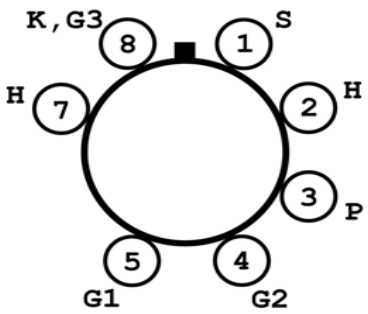
SERIAL NO:

SHARP-CUTOFF PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

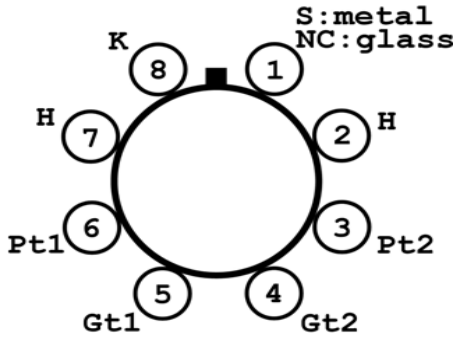
SERIAL NO:

BEAM POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

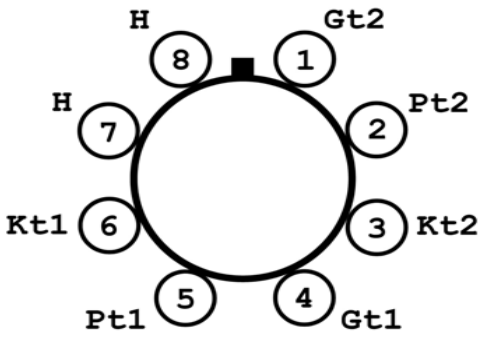
SERIAL NO:

TWIN POWER TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

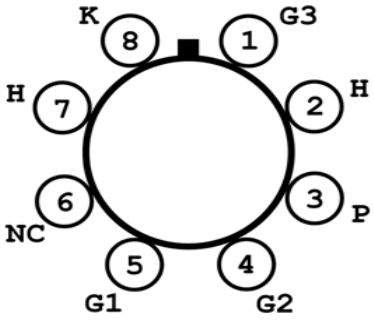
SERIAL NO:

TWIN TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

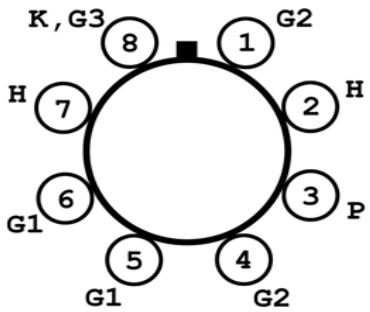
SERIAL NO:

POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

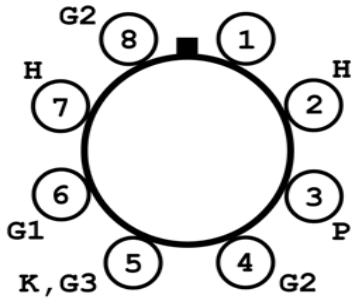
SERIAL NO:

BEAM POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

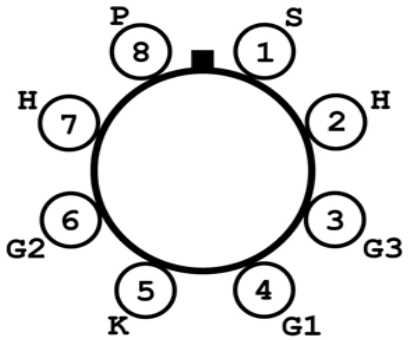
SERIAL NO:

POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

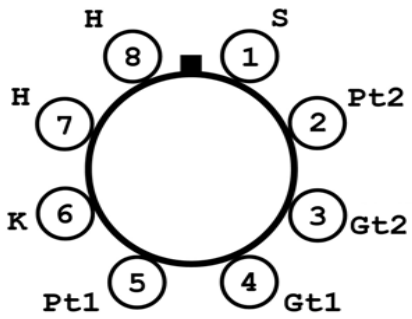
SERIAL NO:

SHARP-CUTOFF PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
1	Metal Shell						
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

6SC7



PIN DIAGRAM: 8S

WIRING SIDE OF SOCKET IS SHOWN

INDEX

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

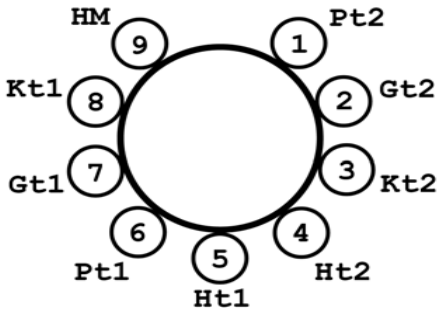
HIGH-MU TWIN TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
1	Metal Shell						
2	t2 - Plate						
3	t2 - Grid						
4	t1 - Grid						
5	t1 - Plate						
6	Common 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

12AT7/ECC81/6679/6201, 5751
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:

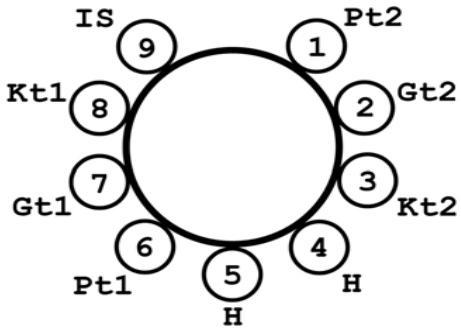
SERIAL NO:

INDEX

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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

INDEX

AMPLIFIER MAKE:

MODEL:

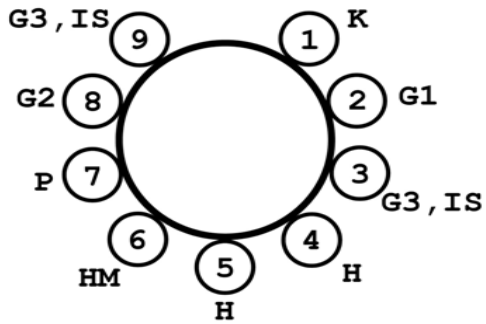
SERIAL NO:

MEDIUM-MU TWIN TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

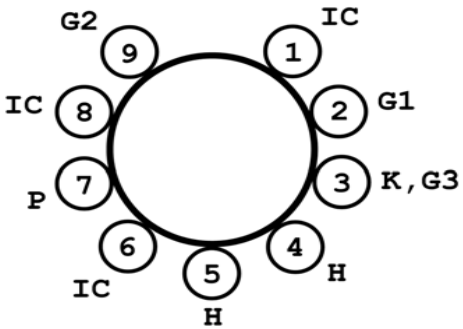
SERIAL NO:

SHARP-CUTOFF PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

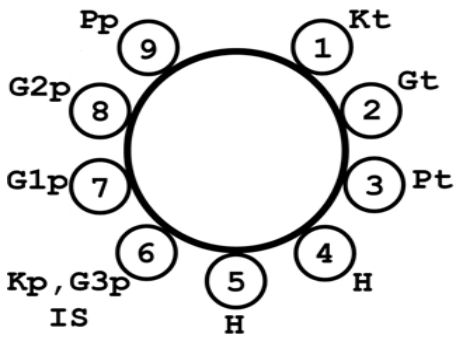
SERIAL NO:

POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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

6CX8



PIN DIAGRAM: 9DX

WIRING SIDE OF SOCKET IS SHOWN

INDEX

AMPLIFIER MAKE:

MODEL:

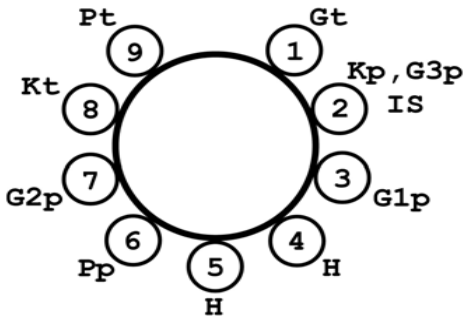
SERIAL NO:

MEDIUM-MU TRIODE, SHARP-CUTOFF PENTODE

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

6BM8/ECL82
50BM8/UCL82



PIN DIAGRAM: 9EX

WIRING SIDE OF SOCKET IS SHOWN

INDEX

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

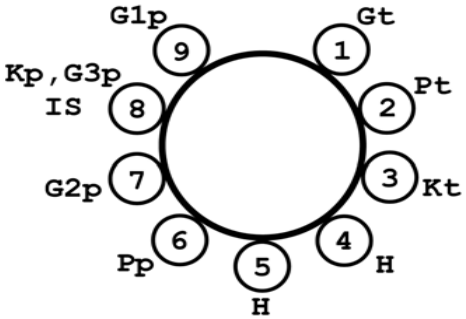
HIGH-MU TRIODE, POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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

INDEX

AMPLIFIER MAKE:

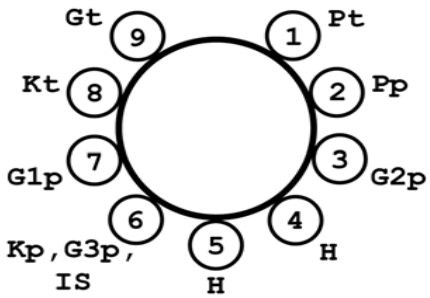
MODEL:

SERIAL NO:

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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



PIN DIAGRAM: 9JT

WIRING SIDE OF SOCKET IS SHOWN

INDEX

AMPLIFIER MAKE:

MODEL:

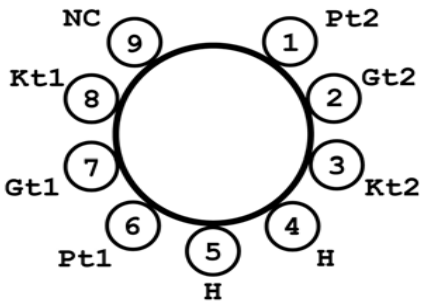
SERIAL NO:

MEDIUM-MU TRIODE, SHARP-CUTOFF PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

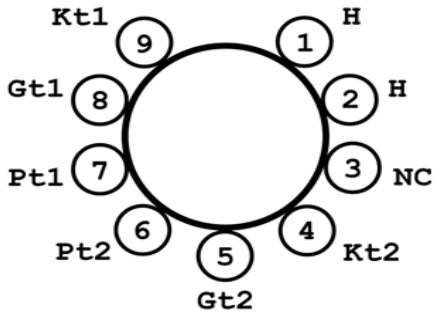
SERIAL NO:

MEDIUM-MU TWIN TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

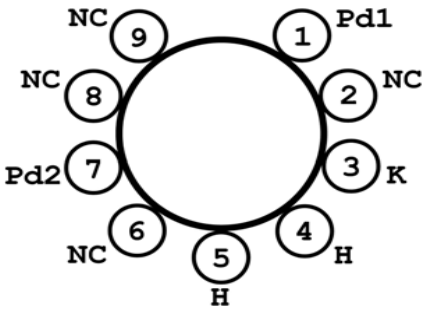
SERIAL NO:

TWIN TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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:

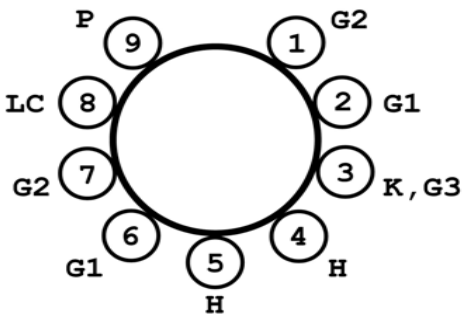
SERIAL NO:

FULL-WAVE RECTIFIER

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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

7868



PIN DIAGRAM: 9RW

WIRING SIDE OF SOCKET IS SHOWN

INDEX

AMPLIFIER MAKE:

MODEL:

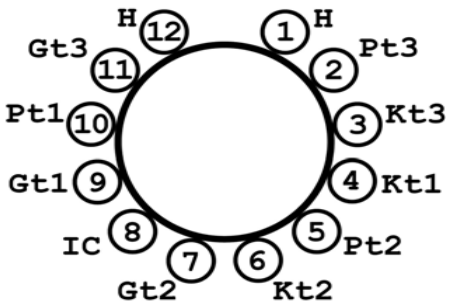
SERIAL NO:

POWER PENTODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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

6C10



PIN DIAGRAM: 12BQ

WIRING SIDE OF SOCKET IS SHOWN

INDEX

AMPLIFIER MAKE:

MODEL:

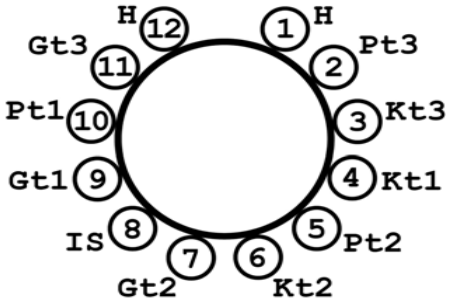
SERIAL NO:

HIGH-MU TRIPLE TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
1	Heater						
2	t3 - Plate						
3	t3 - Cathode						
4	t1 - Cathode						
5	t2 - Plate						
6	t2 - Cathode						
7	t2 - Grid						
8	IC						
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

6K11/6Q11



PIN DIAGRAM: 12BY

WIRING SIDE OF SOCKET IS SHOWN

INDEX

AMPLIFIER MAKE:

MODEL:

SERIAL NO:

THREE-UNIT TRIODE

PIN	ELECTRODE	VOLTAGE READINGS					
		a:	*b:*	*c:*	*d:*	*e:*	*f:*
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