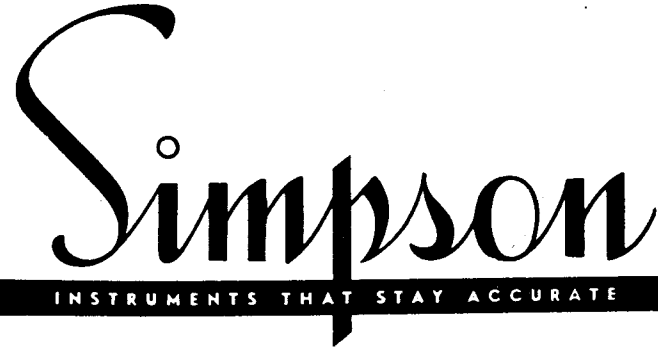


Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test
					Cath-Htr		Inter-Element		
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)	
GL-5750	9	3	44		4	S	1-5-6-7	1	1567
GL-5814A-TRI-1	11	4	35	C	5	S	1-2-6-7	2	67
GL-5814A-TRI-2	11	4	35	C				2	12
GL-5844-TRI-1	9	3	10		4	S	1-2-5-6	3	25
GL-5844-TRI-2	9	3	10					3	14
GL-6463-TRI-1	11	4	10	C	5	S	1-3-6-8	3	68
GL-6463-TRI-2	11	4	10	C				3	13
GL-6005	9	3	42	7	4	S	1-5-6	1	156
GL-6072-TRI-1	11	4	34	C	5	S	1-2-6-7	2	67
GL-6072-TRI-2	11	4	34	C				2	12
GL-6087-DIO-1	8	2	35			S	4-6	1	6
GL-6087-DIO-2	8	2	35			S		1	4
GL-6135	9	3	42	5	4	S	1-f	1	16
GL-6136	9	3	45		4	S	1-5-6	1	156
GL-6137	9	2	42		7	S	3-4-6-8	1	3468
GL-6201-TRI-1	11	4	37	C	5	S	1-2-6-7	2	67
GL-6201-TRI-2	11	4	37	C				2	12
GL-6202-DIO-1	9	3	37		4	S	1-6	1	6
GL-6202-DIO-2	9	3	37					1	1
GL-6265	9	3	37		4	S	1-5-6-7	2	1567
GL-6386-TRI-1	9	1	36		C	S	3-4-6-7	2	67
GL-6386-TRI-2	9	1	36					2	34
KT-66	9	2	43		7	S	3-4-5	1	345
LA	9	1	40			S	2-3-4	1	234



OPERATOR'S MANUAL

MODEL 305 and MODEL 305-RC TUBE TESTER

SIMPSON ELECTRIC CO.

5200 W. Kinzie St., Chicago 44, Illinois. ESTebrook 9-1121

In Canada, Bach-Simpson, Ltd., London, Ontario

Foreword

There are several types of tube-testers for the serviceman. Simpson manufactures all different accepted types. Among these, the Simpson Models 305 and 305RC are the most modest in price. But this does not mean that they are limited in performance of necessary functions. Such instruments are simply not produced by Simpson, because Simpson does not manufacture to sell at a price. First consideration is the design of an instrument that will do a thorough job.

Simpson Models 305 and 305RC are designed to provide accurate testing for all tubes with filament voltages from .5 volts to and including 120 volts. It tests octals, single ended tubes, bantams, midgets, miniatures, ballast tubes, gaseous rectifiers, acorn tubes, Christmas tree bulbs, and all popular radio receiver tubes.

Like other Simpson tube-testers, the 305's incorporate 3-way switching which makes it possible to test any tube regardless of its base connections or the internal connections of its elements. This method, the result of exhaustive research and expensive construction, protects the Model 305's against obsolescence. No adapters or special sockets are required. In addition to having a complete set of sockets for every tube now on the market, this tester has a spare socket, to provide for future tube developments.

On the Model 305RC, the "No-Backlash" Roll Chart prevents the chart from being torn or from getting out of align-

ment by automatically keeping chart in constant tension. This gives precision selection at all times. If you will remove the Roll Chart unit you will see the very superior Simpson construction throughout. It is, beyond question, the finest roll chart mechanism, in design and in quality manufacture, on any tube tester today.

These testers have provision for testing pilot lamps of various voltages as well as Christmas tree bulbs. It tests gaseous rectifiers of the OZ4 type—also tests ballast tubes direct in socket for burnouts and opens. Has neon bulb of proper sensitivity for checking shorts. This tube-tester is fused, and has the latest improved circuit. It provides for line adjustment from 100 to 130 volts, with smooth vernier control.

When you purchase Simpson test equipment you get equipment made almost entirely within the various plants of our Company. We are by far more self-contained than any other manufacturer of test equipment. This is your assurance that testers we offer will not quickly become obsolete. Our tremendous investment in expensive production tools is your safeguard against obsolescence and further assurance of unvarying quality.

Here at Simpson we do not regard our job finished when we have sold an instrument. Our interest in your Model 305 or 305RC never ceases. We want your satisfaction with it to be continuing. That is the reason for this Operator's Manual. We want you to know how to get the most from your tube-tester.

We have made this instrument as rugged as we know how. Give it the care and careful handling it deserves, and it will give you a lifetime of accurate, dependable service.



Simpson Model 305 Tube Tester
Size: 8" x 10 $\frac{1}{4}$ " x 5 $\frac{1}{2}$ ". Weight: 8 lbs.

OPERATOR'S MANUAL

SIMPSON MODEL 305 AND MODEL 305-RC TUBE TESTER

GENERAL

The toggle switches marked C, 1, 2, 3, 4, 5, 6, 7, and 8 are connected to the correspondingly numbered tube elements in accordance with the standard RMA numbering system. Toggle switch 9 is a meter reversing switch.

The position of any of the rotary or toggle switches for the various tests on a tube are indicated on the chart. Any of the toggle switches which are not indicated on the chart are to be left in the *normal* position. Normal position for switches C, 1, 2, 3, 4, 5, 6, 7 and 8 is center. Normal position for switch 9 is down.

Multipurpose tubes such as the 1B5 or 1E7 require more than one test and the switches should be reset for each of the tests as indicated on the chart.

OPERATING PROCEDURE

1. Set all of the group of ten toggle switches, located just below the meter, to the normal position.
2. Rotate the switches marked FILAMENT SELECTOR, FILAMENT RETURN, and TUBE SELECTOR to the position shown on the chart.
3. Throw any toggle switches to the downward position if so called for on the chart in column TOG DOWN.
4. Insert the tube in the proper socket.
5. Test the line voltage by throwing the LINE TEST—TUBE TEST switch to the LINE TEST position. Adjust the line voltage by rotating the knob marked LINE ADJUSTMENT until the meter pointer is at the center mark on the dial marked LINE. Return the LINE TEST—TUBE TEST switch to the TUBE-TEST position.
6. SHORT TEST—CATHODE-HEATER LEAKAGE: If no switch settings are indicated in the column CATHODE-

HEATER LEAKAGE on the chart, the tube has no cathode and no test is necessary.

To test cathode-heater leakage, rotate the **CIRCUIT SELECTOR** switch to the H position. The neon tube will glow until the toggle switch called for in the **CATHODE-HEATER LEAKAGE** column is thrown to the upward position. If the neon does not glow, the heater is open. Throw the toggle switch called for on the chart (which is a heater terminal) to the upward position. The neon tube will be dark unless there is a leakage current flowing between the cathode and heater. The tube should be tapped gently during the test. The neon **SENSITIVITY** switch should ordinarily be in the **LOW** position to prevent indication of normal leakage currents, especially in high filament voltage tubes. However, if for some reason, it is desired to detect very slight leakage currents between the cathode and heater, the **SENSITIVITY** switch may be placed in the **HIGH** position.

After making the **CATHODE-HEATER** leakage test, return toggle switch, shown in **CATHODE-HEATER** column, to the center or normal position.

7. SHORT TEST — LEAKAGES BETWEEN ELEMENTS OTHER THAN CATHODE AND HEATER: To test for leakages between the remaining elements of cathode type tubes and to test leakage between elements of filament type tubes, rotate the **CIRCUIT SELECTOR** switch to the S position. Throw one of the toggle switches, shown on the chart under column **TOGGLES UP** (separately), to the upward position and note if the neon glows or flickers, indicating a short or leakage. Then return it to the center or normal position. Repeat this same procedure for each toggle switch indicated on the chart in this column. The tube should be tapped gently during this test and the neon **SENSITIVITY** switch should be set in the **HIGH** position.

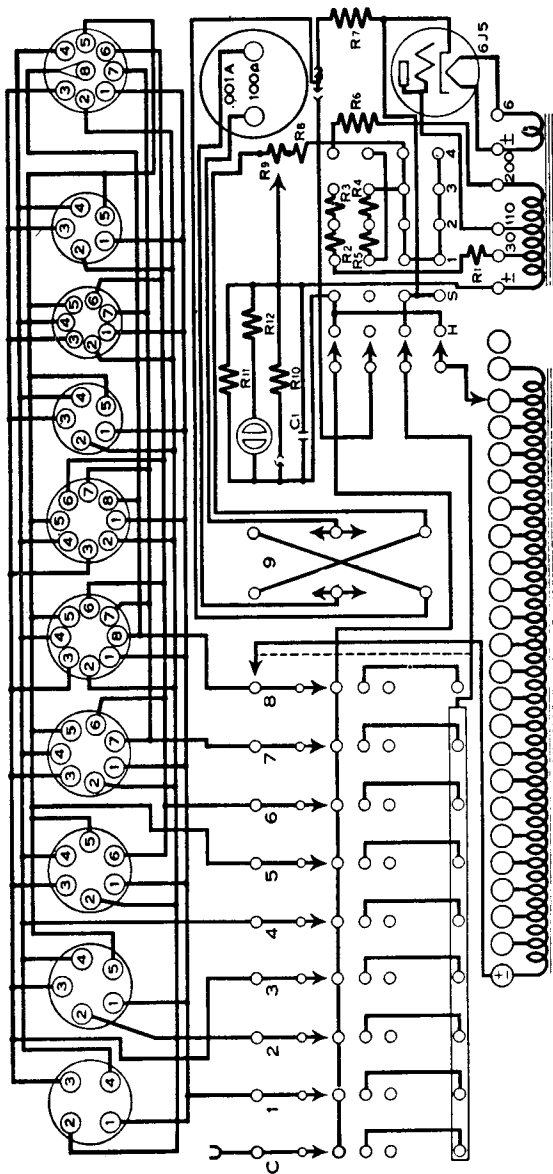
8. QUALITY TEST: After testing the tube for leakages and shorts, rotate the **CIRCUIT SELECTOR** switch to position 1, 2, 3, or 4 as indicated on the chart. Throw all of the toggle switches called for on the chart to the upward position. Read the condition of the tube on the **GOOD-DOUBTFUL-BAD** scale on the meter.

9. OPEN ELEMENTS: In the case of a few tubes, certain elements which are comparatively distant from the cathode may be open without much change in the total reading on the dial, so that the pointer will remain in the **GOOD** portion of the dial. To detect such elements, after making the **QUALITY TEST**, return each toggle switch to the center or normal position, one at a time. If any of the elements are open, there will be no change in the pointer deflection as the corresponding toggle switch is returned to the center position.

10. PILOT AND CHRISTMAS TREE LIGHTS: The center of the 7-prong socket is arranged for insertion of pilot lamps and Christmas tree bulbs. To test these lamps, rotate the **FILAMENT RETURN** switch to 1 and the **FILAMENT SELECTOR** switch to the proper position for the lamp under test, as follows:

Fil. Sel.	Approx. Volts	Fil. Sel.	Approx. Volts
1	0.5	12	17.5
2	0.75	13	25
3	1.0	14	35
4	1.5	15	40
5	2.0	16	50
6	2.5	17	60
7	3.0	18	70
8	5.0	19	80
9	6.0	20	90
10	7.5	21	100
11	12.0	22	110

12. BALLAST TUBES: To test ballast tubes, set the **CIRCUIT SELECTOR** switch to the S position. Throw all of the ten toggle switches to the downward position. Refer to the tube base wiring diagram of the ballast tube and note the numbers of the two pins to which the resistance element is connected, in accordance with the RMA numbering system. Then test each resistance element separately by throwing the two toggle switches corresponding to the numbers of the two pins, one toggle switch to the center and one to the upward position. The neon tube will glow if the resistance element is not burned out. Return the two toggle switches to the downward position, and repeat the same test on any other resistance element in the ballast tube.



MODEL 305
SCHEMATIC
WIRING DIAGRAM

R1	200Ω	R5	200Ω	R9	50Ω	R13	350Ω
R2	800Ω	R6	2,000Ω	R10	1MΩ	C1	00025MFD
R3	4,000Ω	R7	115,000Ω	R11	15MΩ		
R4	70Ω	R8	5Ω	R12	200,000Ω		

ROLL CHART INSTRUCTIONS (MODEL 305-RC)

To remove old chart:

1. Wind entire chart to the upper roller.
2. Place the mechanism on its side with the panel toward you and the knob to the right.
3. Loosen tape from bottom roller and pull old chart from the mechanism.

To install new chart:

1. Turn mechanism upside down with knob to the right. Place new chart, printed side down, on opposite side of mechanism and feed the end of the chart between the guard plate and the panel, then around the roller nearest the panel and out the other side. Place mechanism on its side with the panel away from you and the knob to the right.
2. Remove the covering from the scotch tape attached to the chart and attach to the top roller. Be sure to center paper between the two end discs before attaching. Smooth tape out by rubbing with the fingers and press firmly to the roller. With the mechanism in the same position, roll the chart onto the top roller until the end of the chart is even with the front panel.
3. While holding the end of the paper tightly, revolve the knob until the paper is wound tight on the roller. While holding the knob, pull the end of the chart toward you about even with the center of the bottom roller and hold in this position by pressing against the top roller.

Revolve the bottom roller a few turns toward the paper until it runs back against its spring tension, then wind it ten complete turns toward the paper and hold in this position.

4. Remove the covering from the scotch tape and attach to the bottom roller, being sure to center the paper between the end discs of the roller. Smooth out tape and press firmly to roller.

5. If the paper is either too tight or too loose, the tape may be pulled away from the roller and the tension adjusted as desired.

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test
					Cath-Htr		Inter-Element		
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)	
00A	8	1	39			S	2-3	1	23
01-A	8	1	36			S	2-3	1	23
0A2	22	2	33	147		S	5	1	5
0A3	15	2	37			S	5	1	5
0A4		1	41			S	5	4	5
0A5	2	1	0	3		S	2-4-5-7	4	47
0B2	17	2	19	457		S	1	1	1
0B3	18	2	40			S	5	1	5
0C3	18	2	35			S	5	1	5
0D3	22	2	38			S	5	1	5
0Y4		1	45			S	5	4	5
OZ4-P 1		1	46			S	3-5	4	3
OZ4-P 2		1	46			S	4	4	5
1	9	1	46		H	S	2	1	2
1A3	4	1	0	2	H	S	6	3	6
1A4	5	1	31			S	C-2-3	2	C23
1A5	4	2	33			S	3-4-5	2	345
1A6	5	1	30			S	C-2-3-4-5	2	C2345
1A7	4	2	32			S	C3-4-5-6	2	C3456
1AB5	4	1	34	8		S	2-3-6	2	236
1AE4	3	1	38	5		S	2-3-6	1	236
1AF4	4	1	32	5		S	2-3-6	2	236
1AF5-PEN	4	1	25			S	3-4-5-6	2	456
1AF5-DIO	4	1	0			S	C	3	3
1B3/8016	4	2	20			S	C	4	C
1B4-951	5	1	32			S	C-2-3	2	C23
1B5-25S-TRI	5	1	30			S	2-3-4-5	2	25
1B5-25S-DIO1	5	1	0			S		3	3
1B5-25S-DIO2	5	1	0			S		3	3
1B7	4	2	36			S	C-3-4-5-6	2	C3456

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test
					Cath-Htr		Inter-Element		
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)	
1B8-TRI	4	2	35			S	C-3-4-5-6-8	2	C6
1B8-PEN	4	2	35			S		2	345
1B8-DIO	4	2	0			S		3	8
1C3	4	1	35	6		S	2-4	2	24
1C5	4	2	36			S	3-4-5	2	345
1C6	5	1	32			S	C-2-3-4-5	2	C2345
1C7	5	2	32			S	C-3-4-5-6	2	C3456
1C21	13	2	33			S	5-7	1	57
1D5	5	2	32			S	C-3-4	2	C34
1D7	5	2	29			S	C-3-4-5-6	2	C3456
1D8-TRI	4	2	32			S	C-3-4-5-6-8	2	C6
1D8-PEN	4	2	36			S		2	345
1D8-DIO	4	2	0			S		3	8
1E4	4	2	37			S	3-5	2	35
1E5	5	2	31			S	C-3-4	2	C34
1E7-PEN 1	5	2	35			S	3-4-5-6-8	2	348
1E7-PEN 2	5	2	35			S		2	568
1F4	5	1	33			S	2-3-4	2	234
1F5	5	2	34			S	3-4-5	2	345
1F6-PEN	5	1	32			S	C-2-3-4-5	2	C23
1F6-DIO 1	5	1	0			S		3	4
1F6-DIO 2	5	1	0			S	C-3-4-5-6	2	C36
1F7-PEN	5	2	27			S	C-3-4-5-6	2	C36
1F7-DIO 1	5	2	0			S		3	4
1F7-DIO 2	5	2	0			S		3	5
1G4	4	2	37			S	3-5	2	35
1G5	5	2	36			S	3-4-5	2	345
1G6-TRI 1	4	2	35			S	3-4-5-6	2	34
1G6-TRI 2	4	2	35			S		2	56
1H4	5	2	32			S	3-5	2	35

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test
					Cath-Htr		Inter-Element		
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)	
1H5-TRI	4	2	31			S	C-3-5	2	C3
1H5-DIO	4	2	0					3	5
1H6-TRI	5	2	28			S	3-4-5-6	2	36
1H6-DIO 1	5	2	0					3	4
1H6-DIO 2	5	2	0					3	5
1J5	5	2	32			S	3-4-5	2	345
1J6-TRI 1	5	2	31			S	3-4-5-6	2	34
1J6-TRI 2	5	2	31			S	3-4-5-6	2	56
1L4	4	1	34	5		S	2-3-6	2	236
1LA4	4	1	35			S	2-3-6	2	236
1LA6	4	1	32			S	2-3-4-5-6	2	23456
1LB4	4	1	34			S	2-3-6	2	236
1LC5	4	1	34			S	2-3-4-6	2	2346
1LC6	4	1	32			S	2-3-4-5-6	2	23456
1LD5-PEN	4	1	36			S	2-3-4-6	2	236
1LD5-DIO	4	1	0					3	4
1LE3	4	1	35			S	2-6	2	26
1LG5	4	1	35			S	2-3-4-6	2	2346
1L6	4	1	26			S	2-3-4-5-6	2	23456
1LH4-TRI	4	1	35			S	2-4-6	2	26
1LH4-DIO	4	1	0					3	4
1LN5	4	1	38			S	2-3-4-6	2	2346
1N5	4	2	35			S	C-3-4	2	C34
1N6-PEN	4	2	35			S	3-4-5-6	2	345
1N6-DIO	4	2	0					3	6
1P5	4	2	31			S	C-3-4	2	C34
1Q5	4	2	38			S	3-4-5	2	345
1R4	4	1	0		8	S	2-4	3	4
1R5	4	5	34	1		S	2-3-4-6	2	2346
1S4	4	5	37	16		S	2-3-4	2	234

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test
					Cath-Htr		Inter-Element		
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)	
1S5-PEN	4	1	30			S	3-4-5-6	2	456
1S5-DIO	4	1	0					3	3
1S6-PEN	3	5	0			S	1-3-6-8	3	138
1S6-DIO	3	5	10					3	6
1SA6	4	2	35			S	3-4-6-8	2	3468
1SB6-PEN	4	2	34			S	3-4-5-8	2	348
1SB6-DIO	4	2	0					3	5
1T4	4	5	35	1		S	2-3-6	2	236
1T5	4	2	38			S	3-4-5	2	345
1U4	4	1	30	5		S	2-3-6	2	236
1U5-PEN	4	7	27			S	2-3-4-6	2	236
1U5-DIO	4	7	0					3	4
1V	9	1	45		4	S	2	1	2
1V2	2	4	0	123678		S	C	4	C
1W4	4	1	30			S	2-3-6	2	236
1X2	3	2	15	58		S	3	4	3
1X2	On 1X2 and 1X2-A tubes use special lead in pin #30F								
1Z2	4	1	0			S	C	4	C
2A3	6	1	46	3456		S	2-3	1	23
2A4-T 1	6	2	46			S	3-5	1	3
2A4-T 2	6	2	46			S		1	5
2A5	6	1	41		6	S	2-3-4	1	234
2A6-TRI	6	1	41		6	S	C-2-3-4	1	C2
2A6-DIO 1	6	1	0					3	3
2A6-DIO 2	6	1	0					3	4
2A7	6	1	41		7	S	C-2-3-4-5	1	C2345
2B6-IN	6	1	35		7	S	2-3-4-5	1	34
2B6-OUT	6	1	42					1	2345

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test			Quality Test		
					Cath-Htr Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)	Cir. Sel.	Toggles Up (Together)
2B7-PEN	6	1	34		H	7	S	C-2-3-4-5	1	C23
2B7-DIO 1	6	1	0						3	4
2B7-DIO 2	6	1	0						3	5
2C4	6	1	44		H	7	S	3-5	1	35
2C21-TRI 1	9	1	40		H	7	S	C-3-4-5	1	45
2C21-TRI 2	9	1	40		H	7	S	C	1	C3
2C22	9	2	45		H	7	S	C	1	C
					For Inter-Element Leakage connect lead to each top cap in succession. For Quality Test connect lead to both top caps in parallel.					
2C51-TRI 1	9	1	43		H	C	S	3-4-6-7	1	67
2C51-TRI 2	9	1	43						1	34
2C52-TRI 1	11	7	42		H	8	S	1-2-4-5	1	45
2C52-TRI 2	11	7	42		H	7	S	C-5	1	12
2C53	9	2	44		H	4	S	1-6-7	1	167
2D21	9	3	50	5	H	6	S	2-3-4	1	234
2E5	6	1	34						1	C35
2E24	9	2	45	146				C-3-5	1	C458
2E25A	9	2	42					C-4-5-8	1	C35
2E26	9	2	44		H	7	S	C-3-5	1	1256
2E30	9	3	44	7				1-2-5-6	1	467
2E31	3	3	35					4-6-7	2	367
2E32	3	3	35					4-6-7	2	467
2E35	3	3	0					4-6-7	3	467
2E36	3	3	0					4-6-7	3	467
2E41	3	4	0					3-5-6-7	3	367
2E42	3	4	0					3-5-6-7	3	367
2G5	6	1	34		H	6	S	2-3-4	1	234
2G21-HEP	3	1	8					2-3-5-6-7	3	2356
2G21-TRI	3	1	32						2	57
2G22-HEP	3	1	8					2-3-5-6-7	3	2356

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test			Quality Test		
					Cath-Htr Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)	Cir. Sel.	Toggles Up (Together)
2G22-TRI	3	1	32		H	5	S	2-3	2	57
2S-4S-P 1	6	1	0						3	2
2S-4S-P 2	6	1	0						3	3
2V3	6	2	16					C	4	C
2W3	6	2	36					4	1	4
2X2	6	1	32					C	1	C
2Y2	6	1	32					C	4	C
2Z2	6	1	30					2	1	2
3A4	6	1	35	25				3-4-6	2	346
3A5-TRI 1	6	1	37	4				2-3-5-6	2	56
3A5-TRI 2	6	1	37	4					2	23
3A8-TRI	6	2	34	1				C-3-4-5-6-8	2	56
3A8-PEN	6	2	37	1					2	C34
3A8-DIO	6	2	0	1					3	8
3B4	6	4	0	26				1-3-7	3	137
3B5	6	2	36	8				3-4-5	2	345
3B7-TRI 1	6	1	37	4				2-3-6-7	2	23
3B7-TRI 2	6	1	37	4				C	2	67
3B24	8	2	37	1					4	C
3C5	6	2	36	8				3-4-5	2	345
3C6-TRI 1	7	1	36	7				3-4-5-6	2	56
3C6-TRI 2	7	1	36	7					2	34
3D6	6	1	39	7				2-3-6	2	236
3D21A	11	2	46	1				C-4-6	1	C46
3E5	6	1	31	5		H	7	2-3-6	2	236
3E6	6	1	37	5				2-3-4-6	2	2346
3LE4	6	1	36	7				2-3-6	2	236
3LF4	6	1	36	7				2-3-6	2	236
3Q4	6	1	38	25				3-4-6	2	346
3Q5	6	2	34	8				3-4-5	2	345

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
3S4	6	1	35	56			S	2-3-4	2	234
3V4	7	1	41	5			S	2-3-6	2	236
4A6-TRI 1	5	8	37				S	3-4-5-6	2	34
4A6-TRI 2	5	8	37				S		2	56
5A6	8	5	44	C8			S	1-3-6-7	1	1367
5AZ4-P 1	8	2	36				S	4-6	1	4
5AZ4-P 2	8	2	36				S		1	6
5R4-P 1	8	2	41				S	4-6	1	6
5R4-P 2	8	2	41				S		1	4
5T4-P 1	8	2	43				S	4-6	1	4
5T4-P 2	8	2	43				S		1	6
5U4-P 1	8	2	41				S	4-6	1	4
5U4-P 2	8	2	41				S		1	6
5V4-P 1	8	2	46				S	4-6	1	4
5V4-P 2	8	2	46				S		1	6
5W4-P 1	8	2	36				S	4-6	1	4
5W4-P 2	8	2	36				S		1	6
5X3-P 1	8	1	41				S	2-3	1	2
5X3-P 2	8	1	41				S		1	3
5X4-P 1	8	8	43				S	3-5	1	3
5X4-P 2	8	8	43				S		1	5
5Y3-P 1	8	2	36				S	4-6	1	4
5Y3-P 2	8	2	36				S		1	6
5Y4-P 1	8	8	35				S	3-5	1	3
5Y4-P 2	8	8	35				S		1	5
5Z3-P 1	8	1	41				S	2-3	1	2
5Z3-P 2	8	1	41				S		1	3
5Z4-P 1	8	2	44				S	4-6	1	4
5Z4-P 2	8	2	44				S		1	6
6A3	9	1	45				S	2-3	1	23

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
6A4	9	1	43				S	2-3-4	1	234
6A5	9	2	43	8			S	3-5	1	35
6A6-TRI 1	9	1	41				S	2-3-5-6	1	23
6A6-TRI 2	9	1	41				S		1	56
6A7	9	1	41				S	C-2-3-4-5	1	C2345
6A8	9	2	42				S	C-3-4-5-6	1	C3456
6AB4	9	3	45				S	1-6	1	16
6AB5	9	1	24				S	2-3-4	1	234
6AB6	9	2	37				S	3-4-5	1	345
6AB7	9	2	45				S	3-4-6-8	1	3468
6AC5	9	2	42				S	3-5	1	35
6AC6	9	2	42				S	3-4-5	1	345
6AC7	9	2	47				S	3-4-6-8	1	3468
6AD5	9	2	39				S	3-5	1	35
6AD6-TAR	9	2	0				S	3-4-5	4	5
6AD6-CON 1	9	2	0				S		4	35
6AD6-CON 2	9	2	0				S		4	45
6AD7-TRI	9	2	7				S	1-3-4-5-6	1	16
6AD7-PEN	9	2	41				S		1	345
6AE5	9	2	44				S	3-5	1	35
6AE6-REM	9	2	40				S	3-4-5	1	35
6AE6-SHARP	9	2	40				S		1	34
6AE7-TRI-1	9	2	42				S	3-4-6	1	34
6AE7-TRI-2	9	2	42				S		1	36
6AF4	9	3	46	67			S	1-2	1	12
6AF5	9	2	44				S	3-5	1	35
6AF6-TAR	9	2	0				S	3-4-5	4	5
6AF6-CON-1	9	2	0				S		4	35
6AF6-CON 2	9	2	0				S		4	45
6AG5	9	3	38				S	1-5-6	1	156

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test						Quality Test	
					Cath-Htr		Inter-Element		Toggles Up (Separately)	Cir. Sel.	Cif. Sel.	Toggles Up (Together)
					Cif. Sel.	Tog. Up	Cif. Sel.	Tog. Up				
6AG7	9	2	47		H	7	S	1-4-6-8	1	1468	1	156
6AH4	9	2	46		H	7	S	1-5	1	15	1	15
6AH5	9	2	45		H	7	S	1-4-6	1	146	1	146
6AH6	9	3	47		H	4	S	1-2-5-6	1	1256	1	1256
6AH7-TRI 1	9	8	37		H	7	S	1-3-5-6	1	13	1	13
6AH7-TRI 1	9	8	37		H	7	S	1-5	1	56	1	56
6AJ4	9	8	43	3469	H	4	S	1-5-6	2	15	2	15
6AJ5	9	3	46		H	4	S	1-5-6	1	156	1	156
6AK5	9	3	44	7	H	4	S	1-5-6	1	156	1	156
6AK6	9	3	41		H	4	S	1-2-5-6	1	1256	1	1256
6AL5-DIO 1	9	3	0		H	4	S	2-6-7	3	7	3	7
6AL5-DIO 2	9	3	0		H	7	S	C-4-5	3	2	3	2
6AL6	9	2	45		H	7	S	C-4-5	1	C45	1	C45
6AL7-TRI	9	2	8		H	7	S	1-3-4-5-6	2	13456	2	13456
6AL7-TAR	9	2	8		H	7	S	1-3-4-5-6	4	3	4	3
6AM4	9	7	45	C346	H	8	S	1-5	1	15	1	15
6AN4	9	3	45	67	H	4	S	1-2	1	12	1	12
6AN5	9	3	45		H	4	S	1-5-6	1	156	1	156
6AN6-DIO 1	9	1	10		H	7	S	2-3-4-5	3	5	3	5
6AN6-DIO 2	9	1	10		H	7	S	2-3-4-5	3	4	3	4
6AN6-DIO 3	9	1	10		H	7	S	2-3-4-5	3	3	3	3
6AN6-DIO 4	9	1	10		H	7	S	2-3-4-5	3	2	3	2
6AN7-TRI	9	4	39		H	5	S	C-1-2-7-8	1	C8	1	C8
6AN7-HEX	9	4	44		H	4	S	1-5-6	1	C127	1	C127
6AQ5	9	3	42	7	H	4	S	1-5-6	1	156	1	156
6AQ6-AMP	9	3	40		H	4	S	1-5-6-7	1	17	1	17
6AQ6-DIO 1	9	3	0		H	4	S	1-5-6-7	3	5	3	5
6AQ6-DIO 2	9	3	0		H	4	S	1-5-6-7	3	6	3	6
6AQ7-TRI	9	8	40		H	7	S	1-3-4-5	1	45	1	45
6AQ7-DIO 1	9	8	0		H	7	S	1-3-4-5	3	1	3	1
6AQ7-DIO 2	9	8	0		H	7	S	1-3-4-5	3	3	3	3

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test						Quality Test	
					Cath-Htr		Inter-Element		Toggles Up (Separately)	Cir. Sel.	Cif. Sel.	Toggles Up (Together)
					Cif. Sel.	Tog. Up	Cif. Sel.	Tog. Up				
6AR5	9	3	41		H	4	S	1-5-6	1	156	1	156
6AR6	9	6	45		H	8	S	3-5-7	1	357	1	357
6AS5	9	3	43	5	H	4	S	2-6-7	1	267	1	267
6AS6	9	3	44		H	4	S	1-5-6-7	1	1567	1	1567
6AS7-TRI 1	9	7	46		H	8	S	1-2-4-5	1	12	1	12
6AS7-TRI 2	9	7	46		H	8	S	1-2-4-5	1	45	1	45
6AT6-TRI	9	3	41		H	4	S	1-5-6-7	1	17	1	17
6AT6-DIO 1	9	3	0		H	4	S	1-5-6-7	3	5	3	5
6AT6-DIO 2	9	3	0		H	4	S	1-5-6-7	3	6	3	6
6AU4	9	7	44		H	8	S	5	1	5	1	5
6AU5	9	2	44		H	7	S	1-5-8	1	158	1	158
6AU6	9	3	45		H	4	S	1-2-5-6	1	1256	1	1256
6AV5	9	2	44		H	7	S	1-5-8	1	158	1	158
6AV6-TRI	9	3	43		H	4	S	1-5-6-7	1	17	1	17
6AV6-DIO 1	9	3	0		H	4	S	1-5-6-7	3	6	3	6
6AV6-DIO 2	9	3	0		H	4	S	1-5-6-7	3	5	3	5
6AW6	9	3	45		H	4	S	1-5-6-7	1	1567	1	1567
6AX4	9	7	25		H	8	S	5	3	5	3	5
6AX5-P1	9	2	42		H	7	S	3-5	1	5	1	5
6AX5-P2	9	2	42		H	7	S	3-5	1	3	1	3
6B4	9	2	45		H	6	S	3-5	1	35	1	35
6B5	9	1	36		H	7	S	2-3-4	1	234	1	234
6B6-TRI	9	2	42		H	7	S	C-3-4-5	1	C3	1	C3
6B6-DIO 1	9	2	0		H	7	S	C-3-4-5	3	4	3	4
6B6-DIO 2	9	2	0		H	7	S	C-3-4-5	3	5	3	5
6B7-PEN	9	1	34		H	7	S	C-2-3-4-5	1	C23	1	C23
6B7-DIO 1	9	1	0		H	7	S	C-2-3-4-5	3	4	3	4
6B7-DIO 2	9	1	0		H	7	S	C-2-3-4-5	3	5	3	5
6B8-PEN	9	2	32		H	7	S	C-3-4-5-6	1	C36	1	C36
6B8-DIO 1	9	2	0		H	7	S	C-3-4-5-6	3	4	3	4

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
6B8-DIO 2	9	2	0		H	6	S	1-5-7	3	5
6BA5	9	3	37		H	4	S	1-2-5-6	2	157
6BA6	9	3	45		H	4	S	1-5-6	1	1256
6BC5	9	3	45		H	5	S	2-6-8	3	156
6BC7-DIO 1	9	4	26	3	H	7	S	1-5-8	3	8
6BC7-DIO 2	9	4	26	3	H	3	S	1-2-5-6	3	6
6BC7-DIO 3	9	4	26	3	H	4	S	1-5-6-7	3	2
6BD5	9	2	44		H	7	S	1-5-8	1	158
6BD6	9	4	42		H	3	S	1-2-5-6	1	1256
6BE6	9	3	45		H	4	S	1-5-6-7	1	1567
6BE7	9	4	35		H	5	S	C-1-2-6-7	2	C1267
6BF5	9	3	45	7	H	4	S	1-5-6	1	156
6BF6-TRI	9	3	40		H	4	S	1-5-6-7	1	17
6BF6-DIO 1	9	3	7		H	4	S	1-5-6-7	3	6
6BF6-DIO 2	9	3	7		H	7	S	C-5-8	3	5
6BH6	9	2	45		H	4	S	1-5-6-7	1	C58
6BJ6	9	3	46		H	4	S	1-5-6-7	1	1567
6BK5	9	3	45		H	4	S	1-5-6-7	1	1567
6BK6-TRI	9	4	45	7	H	5	S	1-3-8	1	138
6BK6-DIO 1	9	3	33		H	4	S	1-5-6-7	2	17
6BK6-DIO 2	9	3	10		H	4	S	1-5-6-7	3	6
6BK7-TRI 1	9	4	45		H	5	S	1-2-6-7	3	5
6BK7-TRI 2	9	4	45		H	8	S	1-2-4-5	1	67
6BL7-TRI 1	9	7	45		H	8	S	1-2-4-5	1	12
6BL7-TRI 2	9	7	45		H	8	S	1-2-4-5	1	45
6BN6	9	3	23		H	4	S	2-5-6-7	4	12
6BQ6	9	2	45		H	7	S	C-4-5	1	2567
6BQ7-TRI 1	9	4	45		H	5	S	1-2-6-7	1	C45
6BQ7-TRI 2	9	4	45		H	5	S	1-2-6-7	1	67
6BQ7-TRI 2	9	4	45		H	5	S	1-2-6-7	1	12

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
6BT6-TRI	9	3	33		H	4	S	1-5-6-7	2	17
6BT6-DIO 1	9	3	5		H	4	S	1-5-6-7	3	6
6BT6-DIO 2	9	3	5		H	4	S	1-5-6-7	3	5
6BU6-TRI	9	3	33		H	4	S	1-5-6-7	1	17
6BU6-DIO 1	9	3	5		H	4	S	1-5-6-7	3	6
6BU6-DIO 2	9	3	5		H	4	S	1-5-6-7	3	5
6BX7-TRI 1	9	7	45		H	8	S	1-2-4-5	1	45
6BX7-TRI 2	9	7	45		H	7	S	4-5	1	12
6BY5-P1	9	2	42		H	7	S	4-5	1	5
6BY5-P2	9	2	42		H	7	S	4-5	1	4
6BZ7-TRI 1	9	4	38		H	5	S	1-2-6-7	2	67
6BZ7-TRI 2	9	4	38		H	5	S	1-2-6-7	2	12
6C4	9	3	44	1	H	4	S	5-6	1	56
6C5	9	2	41		H	7	S	3-5	1	35
6C6	9	1	42		H	6	S	C-2-3-4	1	C234
6C7-TRI	9	1	42		H	7	S	C-2-3-4	1	C2
6C7-DIO 1	9	1	0		H	7	S	C-2-4-5	3	4
6C7-DIO 2	9	1	0		H	7	S	C-2-4-5	3	4
6C8-TRI 1	9	2	36		H	7	S	C-3-5-6	3	5
6C8-TRI 2	9	2	36		H	7	S	C-3-5-6	1	C3
6CB6	9	3	46		H	4	S	1-5-6-7	1	56
6CD6	9	2	45		H	7	S	C-5-8	1	1567
6CF6	9	4	13		H	3	S	1-5-6	1	C58
6CL6	9	4	45	C8	H	5	S	2-3-6-7	3	156
6CS6	9	4	48		H	3	S	1-5-6-7	1	2367
6D4	9	3	44		H	4	S	1-5-6-7	2	1567
6D5	9	2	40		H	4	S	1-7	1	17
6D6	9	1	40		H	7	S	3-5	1	35
6D7	9	1	43		H	6	S	C-2-3-4	1	C234
6D8	9	2	41		H	7	S	C-2-3-4	1	C234
6E5	9	1	34		H	7	S	C-3-4-5-6	1	C3456
6E5	9	1	34		H	6	S	2-3-4	1	234

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cirr. Sel.	Toggles Up (Together)
					Cirr. Sel.	Tog. Up	Cirr. Sel.	Toggles Up (Separately)		
6E6-TRI 1	9	1	41		H	7	S	2-3-5-6	1	23
6E6-TRI 2	9	1	41		H	7	S	C-2-3-4	1	56
6E7	9	1	42		H	6	S	2-3	1	C234
6F4	9	1	47	45	H	7	S	C-4	1	23
6F5	9	2	43		H	7	S	3-4-5	1	C4
6F6	9	2	40		H	7	S	C-2-3-4-5	1	345
6F7-TRI	9	1	8		H	7	S	C-3-5-6	1	45
6F7-PEN	9	1	38		H	7	S	C-3-5-6	1	C23
6F8-TRI 1	9	2	43		H	7	S	C-3-5-6	1	C3
6F8-TRI 2	9	2	43		H	7	S	C-3-5-6	1	56
6G5	9	1	34		H	6	S	2-3-4	1	234
6G6	9	2	42		H	7	S	3-4-5	1	345
6H4	9	2	0		H	7	S	4	3	4
6H5	9	1	34		H	6	S	2-3-4	1	234
6H6-DIO 1	9	2	0		H	7	S	3-5	3	2
6H6-DIO 2	9	2	0		H	7	S	3-5	3	5
6J4	9	3	47	15	H	4	S	6-7	1	67
6J5	9	2	45		H	7	S	3-5	1	35
6J6-TRI 1	9	3	46		H	4	S	1-2-5-6	1	25
6J6-TRI 2	9	3	46		H	7	S	C-3-4-5	1	16
6J7	9	2	42		H	7	S	C-3-4-5	1	C345
6J8-TRI	9	2	37		H	7	S	C-3-4-5-6	1	56
6J8-HEP	9	2	41		H	7	S	C-3	1	C345
6K5	9	2	43		H	7	S	3-4-5	1	C3
6K6	9	2	41		H	7	S	C-3-4-5	1	345
6K7	9	2	40		H	7	S	C-3-4-5	1	C345
6K8-TRI	9	2	45		H	7	S	C-3-4-5-6	1	56
6K8-HEX	9	2	45		H	6	S	2-3	1	C345
6L4	9	1	45	45	H	6	S	2-3	1	23
6L5	9	2	44		H	7	S	3-5	1	35

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cirr. Sel.	Toggles Up (Together)
					Cirr. Sel.	Tog. Up	Cirr. Sel.	Toggles Up (Separately)		
6L6	9	2	45		H	7	S	3-4-5	1	345
6L7	9	2	44		H	7	S	C-3-4-5	1	C345
6M5	9	4	45	68	H	5	S	1-2-7	1	127
6M8-PEN	9	2	41		H	7	S	C-3-4-5-6-8	1	C34
6M8-TRI	9	2	34		H	7	S	C-3-4-5-6-8	2	56
6M8-DIO	9	2	0		H	7	S	C-3-4-5-6	3	8
6N4	9	3	42	7	H	4	S	1-5	1	15
6N5	9	1	24		H	6	S	2-3-4	1	234
6N5-TRI	9	1	26		H	6	S	2-3-4	1	23
6N5-TAR	9	1	0		H	6	S	2-3-4	4	24
6N6	9	2	36		H	7	S	3-4-5	1	345
6N7-TRI 1	9	2	42		H	7	S	3-4-5-6	1	34
6N7-TRI 2	9	2	42		H	7	S	3-4-5-6	1	56
6N8-PEN	9	4	44		H	5	S	C-1-2-6-7-8	1	126
6N8-DIO 1	9	4	0		H	5	S	C-1-2-6-7-8	3	8
6N8-DIO 2	9	4	0		H	7	S	C-3-5	3	7
6P5	9	2	39		H	7	S	3-5	1	35
6P7-TRI	9	2	8		H	3	S	C-4-5-6-7	1	67
6P7-PEN	9	2	34		H	3	S	C-4-5-6-7	1	C45
6Q4	9	4	47	278	H	5	S	C-1	1	C1
6Q5	9	2	3		H	7	S	C-3-5	3	35
6Q6-TRI	9	2	40		H	7	S	C-3-5	1	C3
6Q6-DIO	9	2	0		H	7	S	C-3-5	3	5
6Q7-TRI	9	2	42		H	7	S	C-3-4-5	1	C 3
6Q7-DIO 1	9	2	0		H	7	S	C-3-4-5	3	4
6Q7-DIO 2	9	2	0		H	7	S	C-3-4-5	3	5
6R4	9	4	44		H	5	S	1-8	1	18
6R6	9	1	37		H	8	S	2-3-6	1	236
6R7-TRI	9	2	38		H	7	S	C-3-4-5	1	C3
6R7-DIO 1	9	2	0		H	7	S	C-3-4-5	3	4

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short-Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
6R7-DIO 2	9	2	0		H	5	S	C-1-2-6-8	3	5
6R8-TRI	9	4	38						1	C8
6R8-DIO 1	9	4	25						3	6
6R8-DIO 2	9	4	25						3	2
6R8-DIO 3	9	4	25						3	1
6S4	9	4	44	1378	H	5	S	C-6	1	C6
6S6	9	2	46		H	7	S	C-4-8	1	C48
6S7	9	2	39		H	7	S	C-3-4-5	1	C345
6S8-TRI	9	7	41		H	8	S	C-1-3-4-6	1	C6
6S8-DIO 1	9	7	0						3	3
6S8-DIO 2	9	7	0						3	4
6S8-DIO 3	9	7	0						3	1
6SA7	9	2	45		H	7	S	1-3-4-5-8	1	13458
6SB7	9	2	46		H	7	S	1-3-4-5-8	1	13458
6SC7-TRI 1	9	8	41		H	7	S	2-3-4-5	1	23
6SC7-TRI 2	9	8	41		H	7	S	2-3-4-5	1	45
6SD7	9	2	45		H	7	S	1-3-4-6-8	1	13468
6SE7	9	2	46		H	7	S	3-4-6-8	1	3468
6SF5	9	8	43		H	7	S	3-5	1	35
6SF7-PEN	9	8	41		H	7	S	2-4-5-6	1	246
6SF7-DIO	9	8	0						3	5
6SG7	9	8	41		H	7	S	2-4-5-6	1	26
6SH7	9	2	46		H	7	S	4-6-8	1	468
6SJ7	9	2	43		H	7	S	3-4-6-8	1	3468
6SK7	9	2	42		H	7	S	3-4-6-8	1	3488
6SL7-TRI 1	9	8	42		H	7	S	1-2-4-5	1	45
6SL7-TRI 2	9	8	42						1	12
6SN7-TRI 1	9	8	42		H	7	S	1-2-4-5	1	45
6SN7-TRI 2	9	8	42						1	12
6SQ7-TRI	9	8	41		H	7	S	2-4-5-6	1	26

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short-Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
6SQ7-DIO 1	9	8	0		H	7	S	2-4-5-6	3	4
6SQ7-DIO 2	9	8	0						3	5
6SR7-TRI	9	8	40						1	26
6SR7-DIO 1	9	8	0						3	4
6SR7-DIO 2	9	8	0						3	5
6SS7	9	2	42		H	7	S	3-4-6-8	1	3468
6ST7-TRI	9	8	41		H	7	S	2-4-5-6	1	26
6ST7-DIO 1	9	8	0						3	5
6ST7-DIO 2	9	8	0						3	4
6SU7-TRI 1	9	7	38		H	8	S	1-2-4-5	1	12
6SU7-TRI 2	9	7	38						1	45
6SV7-PEN	9	7	44		H	8	S	2-4-5-6	1	246
6SV7-DIO	9	7	0						3	5
6SZ7-TRI	9	7	40		H	8	S	2-4-5-6	1	26
6SZ7-DIO 1	9	7	0						3	5
6SZ7-DIO 2	9	7	0						3	4
6T4	9	3	46	67	H	4	S	1-2	1	12
6T5	9	1	34		H	6	S	2-3-4	1	234
6T7-TRI	9	2	40		H	7	S	C-3-4-5	1	C3
6T7-DIO 1	9	2	0						3	4
6T7-DIO 2	9	2	0						3	5
6T8-TRI	9	4	38		H	5	S	C-1-2-6-8	1	C8
6T8-DIO 1	9	4	20						3	6
6T8-DIO 2	9	4	20						3	2
6T8-DIO 3	9	4	20						3	1
6U4	9	4	46		H	8	S	5	1	5
6U5	9	1	35		H	6	S	2-3-4	1	234
6U6	9	2	46		H	7	S	3-4-5	1	345
6U7	9	2	42		H	7	S	C-3-4-5	1	C345
6U8-TRI	9	4	45		H	5	S	C-1-2-3-6	1	C1

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
6U8-PEN	9	4	45		H	5	S	2	1	236
6V3	9	4	44	C7					1	2
6V3	Plug special lead into #3 pin of 5 pin socket & clip to top.cap.									
6V4-P1	9	4	38		H	5	S	1-7	1	7
6V4-P2	9	4	38							
6V5	9	7	42		H	8	S	3-4-5	1	345
6V6	9	2	43		H	7	S	3-4-5	1	345
6V7-TRI	9	2	41		H	7	S	C-3-4-5	1	C3
6V7-DIO 1	9	2	0						3	4
6V7-DIO 2	9	2	0						3	5
6V8-TRI	9	4	35		H	5	S	C-1-2-6-7	2	16
6V8-DIO 1	9	4	23						3	C
6V8-DIO 2	9	4	23						3	7
6V8-DIO 3	9	4	23						3	2
6W4	9	7	45		H	8	S	5	1	5
6W5-P 1	9	2	44		H	7	S	3-5	1	3
6W5-P 2	9	2	44						1	5
6W6	9	2	43		H	7	S	3-4-5	1	345
6W7	9	2	43		H	7	S	C-3-4-5	1	C345
6X4-P 2	9	3	42		H	4	S	1-6	1	1
6X4-P 1	9	3	42						1	6
6X5-P 1	9	2	42		H	7	S	3-5	1	3
6X5-P 2	9	2	42						1	5
6X8-PEN	9	4	40		H	5	S	C-1-2-3-7-8	2	C78
6X8-TRI	9	4	40						2	23
6Y5-P 1	9	1	47		H	6	S	3-5	1	3
6Y5-P 2	9	1	47						1	5
6Y6	9	2	46		H	7	S	3-4-5	1	345
6Y7-TRI 1	9	2	40		H	7	S	3-4-5-6	1	34
6Y7-TRI 2	9	2	40						1	56

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
6Z3	9	1	46		H	4	S	2	1	2
6Z4-P 1	9	1	42		H	5	S	2-3	1	2
6Z4-P 2	9	1	42						1	3
6Z5-P 1	11	2	42	1	H	6	S	3-5	1	3
6Z5-P 2	11	2	42	1					1	5
6Z7-TRI 1	9	2	41		H	7	S	3-4-5-6	1	34
6Z7-TRI 2	9	2	41						1	56
6ZY5-P 1	9	2	40		H	7	S	3-5	1	3
6ZY5-P 2	9	2	40						1	5
7A4	9	1	44		H	8	S	2-6	1	26
7A5	9	1	46		H	8	S	2-3-6	1	236
7A6-DIO 1	9	1	0		H	8	S	3-6	3	3
7A6-DIO 2	9	1	0						3	6
7A7	9	1	44		H	8	S	2-3-4-6	1	2346
7A8	9	1	42		H	8	S	2-3-4-5-6	1	23456
7AB7	9	2	42		H	7	S	1-3-5	1	135
7AD7	9	1	47		H	8	S	3-4-5-6	1	34
7AF7-TRI 1	9	1	41		H	8	S	3-4-5-6	1	34
7AF7-TRI 2	9	1	41		H	8	S	2-3-4-6	1	56
7AG7	9	1	46		H	8	S	2-3-4-6	1	2346
7AH7	9	1	46		H	8	S	2-3-4-5-6	1	23456
7AJ7	9	1	44		H	8	S	2-3-4-5-6	1	2346
7B4	9	1	44		H	8	S	2-6	1	26
7B5	9	1	42		H	8	S	2-3-6	1	236
7B6-TRI	9	1	43		H	8	S	2-3-5-6	1	23
7B6-DIO 1	9	1	0						3	5
7B6-DIO 2	9	1	0						3	6
7B7	9	1	42		H	8	S	2-3-4-6	1	2346
7B8	9	1	44		H	8	S	2-3-4-5-6	1	23456
7C4	9	1	0		H	8	S	4	3	4

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test			Quality Test		
					Cath-Htr		Inter-Element			
					Cir. Sel.	Tog. Up			Toggles Up (Separately)	
7C5	9	1	44		H	8	S	2-3-6	1	236
7C6-TRI	9	1	41		H	8	S	2-3-5-6	1	23
7C6-DIO 1	9	1	0						3	5
7C6-DIO 2	9	1	0						3	6
7C7	9	1	45		H	8	S	2-3-4-6	1	2346
7E5	9	2	44	567	H	8	S	1-3	1	13
7E6-TRI	9	1	43		H	8	S	2-3-5-6	1	23
7E6-DIO 1	9	1	0						3	5
7E6-DIO 2	9	1	0						3	6
7E7-PEN	9	1	40		H	8	S	2-3-4-5-6	1	256
7E7-DIO 1	9	1	0						3	3
7E7-DIO 2	9	1	0						3	4
7F7-TRI 1	9	1	42		H	8	S	3-4-5-6	1	34
7F7-TRI 2	9	1	42						1	56
7F8-TRI 1	9	2	39		H	7	S	1-3-6-8	2	13
7F8-TRI 2	9	2	39		H	8	S	2-3-4-6	2	68
7G7	9	1	47		H	8	S	2-3-4-6	1	2346
7G8/1206-TET 1	9	1	44		H	8	S	2-3-4-5-7	1	357
7G8/1206-TET 2	9	1	44						1	234
7H7	9	1	45		H	8	S	2-3-4-6	1	2346
7J7-TRI	9	1	40		H	8	S	2-3-4-5-6	1	34
7J7-HEX	9	1	45						1	2456
7K7-TRI	9	1	43		H	8	S	3-4-5-6	1	34
7K7-DIO 1	9	1	0						3	6
7K7-DIO 2	9	1	0						3	5
7L7	9	1	46		H	8	S	2-3-4-6	1	2346
7N7-TRI 1	9	1	44		H	8	S	3-4-5-6	1	34
7N7-TRI 2	9	1	44						1	56
7Q7	9	1	44		H	8	S	2-3-4-5-6	1	23456

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test			Quality Test		
					Cath-Htr		Inter-Element			
					Cir. Sel.	Tog. Up			Toggles Up (Separately)	
7R7-PEN	9	1	46		H	8	S	2-3-4-5-6	1	256
7R7-DIO 1	9	1	0						3	3
7R7-DIO 2	9	1	0						3	4
7S7-HEP	9	1	46		H	8	S	2-3-4-5-6	1	2456
7S7-TRI	9	1	40						1	34
7T7	9	1	45		H	8	S	2-3-4-6	1	2346
7V7	9	1	46		H	8	S	2-3-4-6	1	2346
7W7	9	1	42	7	H	8	S	2-3-5-6	1	2356
7X6-P1	9	1	44		H	8	S	3-6	1	3
7X6-P2	9	1	44						1	6
7X7-TRI	9	1	41		H	8	S	2-3-5-6	1	23
7X7-DIO 1	9	1	0						3	5
7X7-DIO 2	9	1	0						3	6
7Y4-P 1	9	1	43		H	8	S	3-6	1	3
7Y4-P 2	9	1	43						1	6
7Z4-P 1	9	1	37		H	8	S	3-6	1	6
7Z4-P 2	10	1	38						1	3
10	10	1	38						1	23
12A	8	1	42						1	23
12A4	11	4	46	37	H	5	S	C-2	1	C2
12A5	11	1	41	8	H	7	S	2-3-4	1	234
12AL5-DIO 1	11	3	23		H	4	S	2-6-7	3	7
12AL5-DIO 2	11	3	23						3	2
12A35	11	3	42	7	H	4	S	1-5-6	1	156
12A6	11	2	41		H	7	S	3-4-5	1	345
12A7-REC	11	1	46		H	7	S	C-2-3-5	1	5
12A7-PEN	11	1	40						1	C23
12A8	11	2	43		H	7	S	C-3-4-5-6	1	C3456
12AH7-TRI 1	11	8	37		H	7	S	1-3-5-6	1	13
12AH7-TRI 2	11	8	37						1	56

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cirr. Sel.	Toggles Up (together)
					Cirr. Sel.	Tog. Up	Cirr. Sel.	Toggles Up (Separately)		
12AT6-TRI	11	3	42		H	4	S	1-5-6-7	1	17
12AT6-DIO 1	11	3	0						3	6
12AT6-DIO 2	11	3	0						3	5
12AT7-TRI 1	11	4	47	C	H	5	S	1-2-6-7	1	67
12AT7-TRI 2	11	4	47	C					1	12
12AUG	11	3	46		H	4	S	1-2-5-6	1	1256
12AU7-TRI 1	11	4	44	C	H	5	S	1-2-6-7	1	67
12AU7-TRI 2	11	4	44	C					1	12
12AV6-TRI	11	3	43		H	4	S	1-5-6-7	1	17
12AV6-DIO 1	11	3	5						3	6
12AV6-DIO 2	11	3	5						3	5
12AV7-TRI 1	11	4	46	C	H	5	S	1-2-6-7	1	67
12AV7-TRI 2	11	4	46	C					1	12
12AW6	11	3	46		H	4	S	1-5-6-7	1	156
12AX4-DIO	11	7	25		H	8	S	5	3	5
12AX7-TRI 1	11	4	44	C	H	5	S	1-2-6-7	1	67
12AX7-TRI 2	11	4	44	C					1	12
12AY7-TRI 1	11	4	40	C	H	5	S	1-2-6-7	1	67
12AY7-TRI 2	11	4	40	C					1	12
12AZ7-TRI 1	11	4	45	C	H	5	S	1-2-6-7	1	67
12AZ7-TRI 2	11	4	45	C					1	12
12B7	11	1	43		H	8	S	2-3-4-6	1	2348
12B8-TRI	11	2	45		H	7	S	C-3-4-5-8	1	58
12B8-PEN	11	2	43		H	4	S	1-2-5-6	1	C34
12BA6	11	3	46		H	5	S	C-1-2-7	1	1256
12BA7	11	4	45		H	3	S	1-2-5-6	1	C127
12BD6	11	4	42		H	4	S	1-5-6-7	1	1256
12BE6	11	3	45		H	4	S	1-2-6-7	1	1567
12BH7-TRI 1	11	4	45	C	H	5	S	1-2-6-7	1	67

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Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cirr. Sel.	Toggles Up (together)
					Cirr. Sel.	Tog. Up	Cirr. Sel.	Toggles Up (Separately)		
12BH7-TRI 2	11	4	45	C	H	4	S	1-5-6-7	1	12
12BK6-TRI	11	3	33						2	17
12BK6-DIO 1	11	3	10						3	6
12BK6-DIO 2	11	3	10						3	5
12BN6	11	3	24		H	4	S	2-5-6-7	4	2567
12BZ7-TRI 1	11	4	40	C	H	5	S	1-2-6-7	2	67
12BZ7-TRI 2	11	4	40	C					2	12
12C8-PEN	11	2	36		H	7	S	C-3-4-5-6	1	C36
12C8-DIO 1	11	2	0						3	4
12C8-DIO 2	11	2	0						3	5
12E5	11	2	40		H	7	S	3-5	1	35
12F5	11	2	43		H	7	S	C-4	1	C4
12H6-DIO 1	11	2	0		H	7	S	3-5	3	5
12H6-DIO 2	11	2	0						3	3
12J5	11	2	44		H	7	S	3-5	1	35
12J7	11	2	42		H	7	S	C-3-4-5	1	C345
12K7	11	2	41		H	7	S	C-3-4-5	1	C345
12K8-TRI	11	2	46		H	7	S	C-3-4-5-6	1	56
12K8-HEX	11	2	46						1	C345
12L8-PEN 1	11	7	43		H	6	S	1-3-4-5-8	1	158
12L8-PEN 2	11	7	43						1	345
12Q7-TRI	11	2	43		H	7	S	C-3-4-5	1	C3

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test			Quality Test	
					Cath-Htr		Inter-Element		Toggles Up (Together)
					Cir. Sel.	Tog. Up			
12Q7-DIO 1	11	2	0				3	4	
12Q7-DIO 2	11	2	0				3	5	
12S8-TRI	11	7	42		H	8	S	C-1-3-4-6 1 C6	
12S8-DIO 1	11	7	5				3	3	
12S8-DIO 2	11	7	5				3	4	
12S8-DIO 3	11	7	5				3	1	
12SA7	11	2	45		H	7	S	1-3-4-5-8 1 1358	
12SC7-TRI 1	11	8	41		H	7	S	2-3-4-5 1 23	
12SC7-TRI 2	11	8	41		H	7	S	3-5 1 45	
12SF5	11	8	44		H	7	S	2-4-5-6 1 35	
12SF7-PEN	11	8	41		H	7	S	4-6-8 1 246	
12SF7-DIO	11	8	0				3	5	
12SG7	11	2	46		H	7	S	4-6-8 1 468	
12SH7	11	2	46		H	7	S	4-6-8 1 468	
12SJ7	11	2	45		H	7	S	3-4-6-8 1 3468	
12SK7	11	2	42		H	7	S	3-4-6-8 1 45	
12SL7-TRI 1	11	8	42		H	7	S	1-2-4-5 1 12	
12SL7-TRI 2	11	8	42				1	12	
12SN7-TRI 1	11	8	44		H	7	S	1-2-4-5 1 45	
12SN7-TRI 2	11	8	44				1	12	
12SQ7-TRI	11	8	43		H	7	S	2-4-5-6 1 26	
12SQ7-DIO 1	11	8	0				3	4	
12SQ7-DIO 2	11	8	0				3	5	
12SR7-TRI	11	8	41		H	7	S	2-4-5-6 1 26	
12SR7-DIO 1	11	8	0				3	4	
12SR7-DIO 2	11	8	0				3	5	
12SW7-TRI	11	7	41		H	8	S	2-4-5-6 1 26	
12SW7-DIO 1	11	7	0				3	5	
12SW7-DIO 2	11	7	0				3	4	
12SX7-TRI 1	11	7	42		H	8	S	1-2-4-5 1 12	

8 2

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test			Quality Test	
					Cath-Htr		Inter-Element		Toggles Up (Together)
					Cir. Sel.	Tog. Up			
12SX7-TRI 2	11	7	42		H	7	S	1-3-4-5-8 1 45	
12SY7	11	2	43		H	7	S	3-4-5 1 13458	
12V6	11	3	42		H	4	S	1-6 1 345	
12X4P 1	11	3	40				1	6	
12X4P 2	11	3	40				1	1	
12Z3	11	1	46		H	4	S	2 1 2	
12Z5-P 1	11	2	42	1	H	6	S	3-5 1 3	
12Z5-P 2	11	2	42	1			1	5	
14	11	1	40		H	5	S	C-2-3 1 C23	
14A4	11	1	44		H	8	S	2-6 1 26	
14A5	11	1	42		H	8	S	2-3-6 1 236	
14AF7 XCD-TRI 1	11	1	44		H	8	S	3-4-5-6 1 34	
14AF7 XCD-TRI 2	11	1	43		H	8	S	2-3-5-6 1 56	
14B6-TRI	11	1	44		H	8	S	2-3-5-6 1 23	
14B6-DIO 1	11	1	0				3	5	
14B6-DIO 2	11	1	0				3	6	
14B8	11	1	43		H	8	S	2-3-4-5-6 1 23456	
14C5	11	1	44		H	8	S	2-3-6 1 236	
14C7	11	1	44		H	8	S	2-3-4-6 1 2346	
14E6-TRI 1	11	1	41		H	8	S	2-3-5-6 1 23	
14E6-DIO 1	11	1	0				3	5	
14E6-DIO 2	11	1	0				3	6	
14E7-PEN	11	1	40		H	8	S	2-3-4-5-6 1 256	
14E7-DIO 1	11	1	0				3	4	
14E7-DIO 2	11	1	0				3	3	
14F8-TRI 1	11	2	42		H	7	S	1-3-6-8 1 13	

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
14F8-TRI 2	11	2	42		H	8	S	2-3-4-6	1	68
14H7	11	1	46		H	8	S	2-3-4-5-6	1	2346
14J7-TRI	11	1	39		H	8	S	2-3-4-5-6	1	34
14J7-HEX	11	1	45		H	8	S	3-4-5-6	1	2456
14N7-TRI 1	11	1	44		H	8	S	2-3-4-5-6	1	34
14N7-TRI 2	11	1	44		H	8	S	2-3-4-5-6	1	56
14Q7	11	1	45		H	8	S	2-3-4-5-6	1	23456
14R7-PEN	11	1	46		H	8	S	2-3-4-5-6	1	256
14R7-DIO 1	11	1	0		H	8	S	2-3-4-5-6	3	3
14R7-DIO 2	11	1	0		H	8	S	2-3-4-5-6	3	4
14S7-TRI	11	1	41		H	8	S	2-3-4-5-6	1	34
14S7-HEP	11	1	46		H	8	S	2-3-4-5-6	1	2456
14W7	11	1	42	4	H	8	S	2-3-5-6	1	2356
14X7-TRI	11	1	41		H	7	S	2-3-5-6	1	23
14X7-DIO 1	11	1	8		H	8	S	2-3-5-6	3	5
14X7-DIO 2	11	1	8		H	8	S	2-3-5-6	3	6
14Y4-P 1	11	1	43		H	8	S	3-6	1	3
14Y4-P 2	11	1	43		H	8	S	3-6	1	6
14Z3	11	1	46		H	4	S	2	1	2
15	5	1	28		H	5	S	C-2-3	2	C23
17	11	1	37		H	5	S	2-3	1	23
18	11	1	42		H	6	S	2-3-4	1	234
19BG6	12	2	43		H	7	S	C-5-8	1	C58
19C8-TRI	12	4	41		H	5	S	C-1-2-6-8	1	C8
19C8-DIO 1	12	4	25		H	5	S	C-2-3	3	6
19C8-DIO 2	12	4	25		H	5	S	2-3	3	2
19C8-DIO 3	12	4	25		H	6	S	2-3-4	3	2
19J6-TRI 1	12	3	45		H	4	S	1-2-5-6	1	25
19J6-TRI 2	12	3	45		H	5	S	1-2-5-6	1	16
19T8-TRI	12	4	38		H	5	S	C-1-2-6-8	1	C8

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
19-TRI 1	5	1	34					2-3-4-5	2	23
19-TRI 2	5	1	34					2-3-4-5	2	45
19T8-DIO 1	12	4	20					2-3-4-5	3	6
19T8-DIO 2	12	4	20					2-3-4-5	3	2
19T8-DIO 3	12	4	20					2-3-4-5	3	1
19V8-TRI	12	4	35		H	5	S	C-1-2-6-7	2	16
19V8-DIO 1	12	4	23						3	C
19V8-DIO 2	12	4	23						3	7
19V8-DIO 3	12	4	23						3	2
20	7	1	27				S	2-3	2	23
22	7	1	22				S	C-2-3	2	C23
24A	6	1	40		H	5	S	C-2-3	1	C23
25TRI	5	1	30				S	2-3-4-5	2	25
25-DIO 1	5	1	0						3	3
25-DIO 2	5	1	0						3	4
25A6	13	2	43		H	7	S	3-4-5	1	345
25A7-REC	13	2	44		H	7	S	3-4-5-6	1	6
25A7-PEN	13	2	42		H	7	S	3-4-5-6	1	345
25AC5	13	2	43		H	7	S	3-5	1	35
25AV5	13	2	45		H	7	S	1-5-8	1	158
25B5	13	1	41		H	6	S	2-3-4	1	234
25B6	13	2	45		H	7	S	3-4-5	1	345
25B8-TRI	13	2	44		H	7	S	C-3-4-5-8	1	58
25B8-PEN	13	2	44		H	7	S	C-3-4-5-8	1	C34
25BQ6	13	2	45		H	7	S	C-4-5	1	C45
25C6	13	2	45		H	7	S	3-4-5	1	345
25D8-TRI	13	2	42		H	7	S	C-3-4-5-6-8	1	56
25D8-PEN	13	2	44		H	7	S	C-3-4-5-6-8	1	C34
25D8-DIO	13	2	0		H	7	S	3-4-5	3	8
25L6	13	2	46		H	7	S	3-4-5	1	345

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test		
					Cath-Htr		Inter-Element			Cirr. Sel.	Toggles Up (Together)
					Cirr. Sel.	Tog. Up	Cirr. Sel.	Toggles Up (Separately)			
25N6	13	2	41		H	7	S	3-4-5	1	345	
25S-1B5-TRI	5	1	30				S	2-3-4-5	2	25	
25S-1B5-DIO1	5	1	0						3	3	
25S-1B5-DIO2	5	1	0						3	4	
25W4	13	7	43		H	8	S	5	1	5	
25X6-P 1	13	2	43		H	7	S	3-5	1	3	
25X6-P 2	13	2	43						1	5	
25Y5-P 1	11	1	45		H	6	S	2-5	1	2	
25Y5-P 2	13	1	45						1	5	
25Z3	13	1	46		H	4	S	2	1	2	
25Z4	13	2	47		H	7	S	5	1	5	
25Z5-P 1	13	1	46		H	6	S	2-5	1	2	
25Z5-P 2	13	1	46						1	5	
25Z6-P 1	13	2	46		H	7	S	3-5	1	3	
25Z6-P 2	13	2	46						1	5	
26	4	1	36						1	23	
26A6	13	3	46		H	4	S	2-3	1	1567	
26A7-PEN 1	13	6	46		H	7	S	1-2-5-6	1	17	
26A7-PEN 2	13	6	46		H	7	S	1-3-4-5	1	15	
26C6-TRI	13	3	40		H	4	S	1-5-6-7	1	345	
26C6-DIO 1	13	3	0						1	17	
26C6-DIO 2	13	3	0						3	5	
26D6	13	3	45		H	4	S	1-5-6-7	1	1567	
26BK6-TRI	13	3	34		H	4	S	1-5-6-7	2	17	
26BK6-DIO 1	13	3	10						3	6	
26BK6-DIO 2	13	3	10						3	5	
26Z5W-DIO 1	13	4	25	C	H	5	S	1-6	3	6	
26Z5W-DIO 2	13	4	25	C	H	5	S	2-3	3	1	
27	6	1	37						1	23	
28D7-P 1	13	1	41		H	8	S	2-3-4-5-7	2	357	

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test		
					Cath-Htr		Inter-Element			Cirr. Sel.	Toggles Up (Together)
					Cirr. Sel.	Tog. Up	Cirr. Sel.	Toggles Up (Separately)			
28D7-P 2	13	1	41		H	6	S	2-3-4	2	234	
29-TRI 1	6	1	35						1	23	
29-TRI 2	6	1	35						1	24	
30	5	1	32				S	2-3	2	23	
30S	5	1	32				S	C-3	2	C3	
31	5	1	33				S	2-3	2	23	
32	5	1	32	C			S	C-2-3	2	C23	
32L7-REC	14	2	46		H	7	S	3-4-5-6	1	6	
32L7-TET	14	2	45						1	345	
33	5	1	35				S	2-3-4	2	234	
34	5	1	31				S	C-2-3	2	C23	
35-51	6	1	40		H	5	S	0-2-3	1	C23	
35A5	14	1	46		H	8	S	2-3-6	1	236	
35B5	14	3	45	7	H	4	S	1-5-6	1	156	
35C5	14	3	44	5	H	4	S	2-6-7	1	267	
35L6	14	2	47		H	7	S	3-4-5	1	345	
35W4	14	3	46	6	H	4	S	5	1	5	
35Y4	13	1	45	4	H	8	S	2	1	2	
35Z3	14	1	47		H	8	S	2	1	2	
35Z4	14	2	46		H	7	S	5	1	5	
35Z5	14	2	47	3	H	7	S	5	1	5	
35Z6-P 1	14	2	47		H	7	S	3-5	1	3	
35Z6-P 2	14	2	47		H	7	S	3-5	1	3	
36	9	1	41		H	5	S	C-2-3	1	C23	
37	9	1	39		H	5	S	2-3	1	23	
38	9	1	40		H	5	S	C-2-3	1	C23	
39-44	9	1	37		H	5	S	C-2-3	1	C23	
40	8	1	38						1	23	
40Z5	15	2	43	3	H	7	S	5	1	5	
41	9	1	43		H	6	S	2-3-4	1	234	

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
42	9	1	43		H	6	S	2-3-4	1	234
43	13	1	46		H	6	S	2-3-4	1	234
44-39	9	1	37		H	5	S	C-2-3	1	C23
45	6	1	41		H	7	S	2-3	1	23
45Z3	15	1	45	2	H	7	S	6	1	6
45Z5	15	2	43	3	H	7	S	5	1	5
46	6	1	42		S	2-3-4	S	2-3-4	1	234
47	6	1	42		S	2-3-4	S	2-3-4	1	234
48	13	1	45		H	6	S	2-3-4	1	234
49	5	1	34		S	2-3-4	S	2-3-4	2	234
50	10	1	40		S	2-3	S	2-3	1	23
50A5	16	1	47		H	8	S	2-3-6	1	236
50B5	16	3	46		H	4	S	1-5-6	1	156
50C5	16	3	45	5	H	4	S	2-6-7	1	267
50C6	16	2	47		H	7	S	3-4-5	1	345
50L6	16	2	46		H	7	S	3-4-5	1	345
50X6-P 1	16	1	44		H	8	S	3-6	1	3
50X6-P 2	16	1	44		H	7	S	3-5	1	6
50Y6-P 1	16	2	46		H	7	S	3-5	1	3
50Y6-P 2	16	2	46		H	5	S	C-2-3	1	5
50Y7-P 1	16	2	44	6	H	7	S	3-5	1	5
50Y7-P 2	16	2	44		H	7	S	3-5	1	3
50Z7-P 1	16	2	46	6	H	7	S	3-5	1	3
50Z7-P 2	16	2	46	6	H	7	S	C-2-3	1	5
51-35	6	1	40		H	5	S	2-3-4	1	C23
52	9	1	43		H	7	S	2-3-4	1	234
53-TRI 1	6	1	42		H	7	S	2-3-5-6	1	23
53-TRI 2	6	1	42		H	6	S	2-3-5-6	1	56
55-TRI	6	1	34		H	6	S	C-2-3-4	1	C2
55-DIO 1	6	1	0						3	3

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
55-DIO 2	6	1	0		H	5	S	2-3	3	4
56	6	1	40		H	6	S	C-2-3-4	1	23
57	6	1	42		H	6	S	C-2-3-4	1	C234
58	6	1	41		H	6	S	C-2-3-4	1	C234
59	6	1	42		H	7	S	2-3-4-5	1	2345
70A7-TET	18	2	44	6	H	7	S	3-4-5	1	345
70A7-REC	18	2	46	6	H	7	S	3-4-5-8	1	19
70L7-REC	18	2	46		H	7	S	3-4-5-8	1	8
70L7-TET	18	2	45		H	7	S	2-3	1	345
71A	8	1	41		H	6	S	C-2-3-4	1	23
75-TRI	9	1	41		H	6	S	C-2-3-4	1	C2
75-DIO 1	9	1	0						3	3
75-DIO 2	9	1	0						3	4
76	9	1	39		H	5	S	2-3	1	23
77	9	1	41		H	6	S	C-2-3-4	1	C234
78	9	1	41		H	6	S	C-2-3-4	1	C234
79-TRI 1	9	1	41		H	6	S	C-2-3-4	1	C5
79-TRI 2	9	1	41		H	6	S	C-2-3-5	1	23
80-P 1	8	1	37				S	2-3	1	2
80-P 2	8	1	37				S	2-3	1	3
81	10	1	33				S	2	1	2
82-P 1	6	1	47				S	2-3	1	2
82-P 2	6	1	47				S	2-3	1	3
83-P 1	8	1	47				S	2-3	1	2
83-P 2	8	1	47				S	2-3	1	3
83V-P 1	8	1	45				S	2-3	1	2
83V-P 2	8	1	45				S	2-3	1	3
84-P 1	9	1	42		H	5	S	2-3	1	2
84-P 2	9	1	42		H	6	S	C-2-3-4	1	3
85-TRI	9	1	34				S	C-2-3-4	1	C2

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test
					Cath-Htr		Inter-Element		
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)	
85-DIO 1	9	1	0					3	3
85-DIO 2	9	1	0					3	4
89	9	1	39					1	C234
99	7	1	0					2	23
117L7-REC	22	2	45					1	6
117L7-TET	22	2	46					1	345
117M7-REC	22	2	46					1	6
117M7-TET	22	2	46					1	345
117N7-TET	22	2	46					1	345
117N7-REC	22	2	46					1	89
117P7-TET	22	2	45					1	345
117P7-REC	22	2	47					1	89
117Z3	22	3	44	1				1	5
117Z4	22	2	46					1	5
117Z6-P 1	22	2	46	1				1	3
117Z6-P 2	22	2	46	1				1	5
182	8	1	41					1	5
183	8	1	41					1	23
257	7	1	33					2	234
484	7	1	41					1	23
502A	9	2	46					1	356
585	10	1	39					1	23
586	10	1	39					1	23
717A	9	2	37					1	468
807	9	1	43					1	C23
840	5	1	33					2	C234
864	4	1	30					2	23
874	16	1	21					1	1
879/2X2	6	1	32					4	C
884	9	3	45					1	35

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test
					Cath-Htr		Inter-Element		
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)	
885	6	1	45					1	23
950	5	1	32					2	234
951-1B4	5	1	34					2	C23
954	9	1	40					1	C348
955	9	1	35					1	34
956	9	1	38					1	C348
957	3	1	26					2	34
958	3	1	28					2	34
959	3	1	32					2	C348
986-P 1	8	1	47					1	2
986-P 2	8	1	47					1	3
1201	9	2	44	567				1	13
1203A	9	1	15					3	4
1204	9	2	42					1	135
1206-TET 1	9	1	43					1	357
1206-TET 2	9	1	43					1	234
1221	9	1	42					1	C234
1223	9	2	42					1	C345
1229	5	1	29					2	C23
1231	9	1	45					1	2346
1232	9	1	46					1	2346
1267	2	2	35					4	5
1273	9	1	43					1	2346
1280	11	1	43					1	2346
1291-TRI 1	6	1	37	4				2	23
1291-TRI 2	6	1	37	4				2	67
1293	4	1	32	5				2	26
1294	4	1	0					3	4
1299	6	1	41	7				2	236
1602	10	1	39					1	23

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
1603	9	1	42		H	6	S	C-2-3-4	1	C234
1609	3	1	32				S	2-3-4	2	234
1612	9	2	42		H	7	S	C-3-4-5	1	C345
1614	9	2	42		H	7	S	3-4-5	1	345
1619	6	2	42				S	3-4-5-8	1	3458
1620	9	2	41		H	7	S	C-3-4-5	1	C345
1621	9	2	41		H	7	S	3-4-5	1	345
1622	9	2	45		H	7	S	3-4-5	1	345
1624	6	1	42		H	7	S	C-2-3	1	C23
1625	11	1	45		H	7	S	C-3-4	1	C34
1626	11	2	40		H	7	S	3-5	1	35
1629-TRI	11	2	35		H	7	S	3-4-5	1	35
1629-TAR	11	2	0				S		4	34
1631	11	2	43		H	7	S	3-4-5	1	345
1632	11	2	44		H	7	S	3-4-5	1	345
1633-TRI 1	13	8	43		H	7	S	3-4-5	1	345
1633-TRI 2	13	8	43		H	7	S	1-2-4-5	1	45
1634-TRI 1	11	8	41		H	7	S	2-3-4-5	1	45
1634-TRI 2	11	8	41		H	7	S		1	23
1635-TRI 1	9	2	42		H	7	S	3-4-5-6	1	56
1635-TRI 2	9	2	42				S		1	34
1641/RK60-P1	8	1	41				S	C-C	1	C
1641/RK60-P2	8	1	41						1	C
1641/RK60										
Por inter-element leakage and quality test connect lead to each top cap in succession.										
1642-TRI 1	9	1	40		H	7	S	C-3-4-5	1	45
1642-TRI 2	9	1	40						1	C3
1644-PEN 1	11	7	43		H	6	S	1-3-4-5-8	1	158
1644-PEN 2	11	7	43						1	345

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element		Cir. Sel.	Toggles Up (Together)
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
1654	4	1	31				S	C	4	C
1651	9	2	47		H	7	S	C-3-4-5	1	C345
1852	9	2	47		H	7	S	3-4-6-8	1	3468
1853	9	2	45		H	7	S	3-4-6-8	1	3468
2050	9	2	47		H	7	S	3-5-6	1	356
2051	9	2	47		H	7	S	3-5-6	1	356
5516	9	2	44	146	H	7	S	C-3-5	1	C35
5517	6	3	29	267	H	7	S	C-4	4	C4
5608A-TRI 1	6	1	41		H	7	S	2-3-5-6	1	56
5608A-TRI 2	6	1	41				S		1	23
5610	9	3	41	5	H	4	S	1-6	1	16
5618	9	1	46		5		S	2-3-4-6	1	2346
5642	3	1	0				S	C	3	C
5642										
Insert filament leads into outside pin connections (#1 and #7 pin sub-miniature adapter. Test on diode scale.										
5651	17	2	10	34567			S	1	2	1
5654	9	3	37		H	4	S	1-5-6	2	156
5662	9	3	43	6	H	4	S	1-7	4	7
5663	9	3	43	6	H	4	S	1-5-7	4	7
5670-TRI 1	9	1	36	5	H	C	S	3-4-6-7	2	67
5670-TRI 2	9	1	36	5			S		2	34
5679-DIO 1	9	1	15	4	H	8	S	3-6	3	6
5679-DIO 2	9	1	15	4	H	5	S	C-1-2-7	3	3
5687-TRI 1	11	4	46	8	H		S		1	C7
5687-TRI 2	11	4	46	8	H		S		1	12
5691-TRI 1	9	7	39	8	H	8	S	1-2-4-5	1	45
5691-TRI 2	9	7	39	8			S		1	12
5692-TRI 1	9	7	41	8	H	8	S	1-2-4-5	1	45
5692-TRI 2	9	7	41	8	H	7	S	3-4-6-8	1	12
5693	9	3	43		H	7	S		1	3468

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element			
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
5696	9	3	45	7	H	4	S	1-5-6	4	6
5722	8	3	20	67	H	6	S	1	1	1
5731	9	1	37		H	6	S	3-4	1	34
5749	9	3	44		H	4	S	1-2-5-6	1	1256
5751-TRI 1	11	4	42	C	H	5	S	1-2-6-7	1	67
5751-TRI 2	11	4	42	C	H	5	S	1-2-6-7	1	12
5763	9	4	45	C	H	5	S	1-3-6-8	1	1368
5812	9	3	43	7	H	5	S	1-2-5-6	1	1256
5814-TRI 1	11	4	42	C	H	5	S	1-2-6-7	1	67
5814-TRI 2	11	4	42	C	H	5	S	1-2-6-7	1	12
5824	13	2	44		H	7	S	3-4-5	1	345
5879	9	4	33		H	7	S	C-1-7-8	2	C178
5881	9	2	43		H	7	S	3-4-5	1	345
5910	4	1	32	5	H	7	S	2-3-6	2	236
5963-TRI 1	11	5	41	C	H	4	S	1-2-6-7	1	67
5963-TRI 2	11	5	41	C	H	4	S	1-2-6-7	1	67
6080-TRI 1	9	8	43		H	7	S	1-2-4-5	1	45
6080-TRI 2	9	8	43		H	7	S	1-2-4-5	1	12
7000	9	2	42		H	7	S	C-3-4-5	1	C345
7700	9	1	42		H	5	S	C-2-3-4	1	C234
7193	9	2	45		H	7	S	C	1	C
7193	Insert filament leads into outside pin connections (#1 and #7 pin sub-miniature adapter. Test on diode scale.									
8016	4	2	6		H	4	S	C	4	C
9001	9	3	42		H	4	S	1-5-6	1	156
9002	9	3	42	1	H	4	S	5-6	1	56
9003	9	3	42		H	4	S	1-5-6	1	156
9004	9	1	15		H	6	S	3	3	3
9005	7	1	0	7	H	6	S	4	3	4
9006	9	3	0	25	H	4	S	1	3	1

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Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element			
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
CK1013		3	29	267	H	7	S	C-4	4	C4
CK5608-TRI1	6	1	40					2-3-5-6	1	56
CK5608-TRI2										
CK5654	9	3	37		H	4	S	1-5-6	2	156
CK5656-TET1	9	4	46		H	5	S	1-2-3-7-8	1	137
CK5656-TET2	9	4	46						1	128
CK5672	4	5	0					4-6-7	3	467
CK5677	3	4	0					5-7	3	57
CK5678	3	3	0					4-6-7	3	467
CK5686	9	4	41		H	5	S	2-6-7	1	267
CK5694-TRI1	9	2	41	C	H	7	S	3-4-5-6	1	56
CK5694-TRI2	9	2	41		H	7	S	3-4-5-6	1	34
CK5702	9	4	44		H	5	S	1-3-6-7	1	1367
CK5703	9	4	0		H	5	S	3-7	3	37
CK5725	9	3	44		H	4	S	1-5-6-7	1	1567
CK5726-P 1	9	3	44		H	4	S	2-7	1	7
CK5726-P 2	9	3	44		H	4	S	2-7	1	2
CK5744	9	5	43		H	6	S	4-7	1	47
CK502AX	3	5	0					4-6-7	3	467
CK503AX	3	5	10					4-6-7	3	467
CK506AX	3	5	30					4-6-7	2	467
CK523AX	3	5	10					4-6-7	3	467
CK568AX	3	4	0					5-7	3	57
CK569AX	3	3	0					4-6-7	3	467
CK551AXA-PFN	3	2	0					3-5-6-7	3	367
CK551AXA-DIO	3	2	0					3-5-6-7	3	5
CK606BX	9	5	6		H	6	S	7	3	7

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test			Quality Test		
					Cath-Htr		Inter-Element		Toggles Up (Together)	
					Cir. Sel.	Tog. Up				Cir. Sel.
CK605CX	9	4	44		H	5	S	1-3-6-7	1	1367
CK608CX	9	1	0		H	5	S	3-7	3	37
C%	10	1	32							
GL6134	9	2	46		H	7	S	2	1	2
GL6203-P 1	9	4	39		H	5	S	3-4-6-8	1	3468
GL6203-P 2	9	4	39					C-1	1	C
HI-P0567-P1	8	2	42				S	4-6	1	1
HI-P0567-P2	8	2	42				S		1	6
HY113	4	1	0				S	2-3	1	4
HY115	4	1	0				S	2-3-4	3	23
HY115	4	1	5				S	2-3-4	3	234
HY123	4	1	0				S	2-3	3	234
HY125	4	1	5				S	2-3	3	23
HY145	4	1	5				S	2-3-4	3	234
HY155	4	1	5				S	2-3-4	3	234
K24	6	1	40		H	5	S	2-3-4	3	234
KR1	9	1	46		H	4	S	C-2-3	1	C23
KR2	8	1	46		H	4	S	2	1	2
KR5	9	1	42		H	4	S	2	1	2
KR25	6	1	41		H	6	S	2-3-4	1	234
KR28-P 1	9	1	42		H	5	S	2-3-4	1	234
KR28-P 2	9	1	42					2-3	1	2
KR98-P 1	9	1	42		H	5	S	2-3	1	2
KR98-P 2	9	1	42						1	2
KT66	9	2	43		H	7	S	3-4-5	1	345
LA	9	1	40				S	2-3-4	1	234
P861-P 1	9	1	42		H	5	S	2-3	1	2
P861-P 2	9	1	42						1	2
VR75	15	2	37				S	5	1	3
VR90	18	2	40				S	5	1	5
VR105	18	2	35				S	5	1	5

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test			Quality Test		
					Cath-Htr		Inter-Element		Toggles Up (Together)	
					Cir. Sel.	Tog. Up				Cir. Sel.
VR150	22	2	38		H		S	5	1	5
XXB-TRI 1	7	1	36	7			S	3-4-5-6	2	56
XXB-TRI 2	7	1	36	7			S	3-4-5-6	2	34
XXD-TRI 1	11	1	43		H	8	S	3-4-5-6	1	34
XXD-TRI 2	11	1	43						1	56
XXFM-TRI	9	1	41		H	8	S	2-3-5-6	1	23
XXFM-DIO 1	9	1	0						3	5
XXFM-DIO 2	9	1	0						3	6
XXL	9	1	45		H	8	S	2-6	1	26
SUPPLEMENT 2-55										
1AD4	3	5	0				S	1-2-4	3	124
1L6	4	1	26				S	2-3-4-5-6	2	23456
1LH4-TRI	4	1	31				S	2-4-6	2	26
1LH4-DIO	4	1	0						3	4
2AF4-A	6	4	45	6-7	H	3	S	1-2	1	12
2V2	6	2	0	5			S	C	4	C
3AL5-DIO	7	3	23		H	4	S	2-6-7	3	2
3AL5-DIO-2	7	3	23				S		3	7
3AU6	7	3	44		H	4	S	1-2-5-6	1	1256
3AV6-TRI	6	3	43		H	4	S	1-5-6-7	1	17
3AV6-DIO	6	3	5						3	5
3AV6-DIO-2	6	3	5				S	1-5-6	3	6
3BC5	6	4	45	7	H	3	S	1-5-6	1	156
3BZ6	6	4	44		H	3	S	1-5-6	1	156
3BN6	6	3	23		H	4	S	2-5-6-7	4	2567
3CB6	6	4	42		H	3	S	1-5-6	1	156
3CS6	6	4	37		H	3	S	1-5-6-7	2	1567

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element			
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
4BQ7-TRI-1	7	4	11		H	5	S	1-2-6-7	3	12
4BQ7-TRI-2	7	4	11		H	4	S	1-2-6-7	3	67
4BZ7-TRI-1	7	5	38		H	4	S	1-2-6-7	2	67
4BZ7-TRI-2	7	5	38		H	4	S	2-3-6-8	2	12
5AM8-TRI	8	5	37	7	H	4	S	1-2-6-7	2	236
5AM8-DIO	8	5	45		H	4	S	1-2-6-7-8	4	8
5AN8-TRI	8	5	44		H	4	S	1-2-6-7-8	1	12
5AN8-PEN	8	5	39		H	4	S	1-5-6	2	678
5AQ5	8	3	44	7	H	4	S	1-5-6	1	156
5AU4-PI	8	2	42		H	8			1	6
5AU4-P2	8	2	42				S	4-6	1	4
5AW4-PI	8	2	43				S		4	4
5AW4-P2	8	2	43				S		4	6
5BK7-TRI-1	8	4	38		H	5	S	1-2-6-7	2	12
5BK7-TRI-2	8	4	38		H	4	S	1-2-5-6	2	67
5J6-TRI-1	8	3	45		H	4	S	1-2-5-6	1	25
5J6-TRI-2	8	3	45		H	5	S	C-1-2-6-8	1	16
5T8-TRI	8	4	39		H	5	S	C-1-2-6-8	1	C8
5T8-DIO-1	8	4	20						3	6
5T8-DIO-2	8	4	20						3	2
5T8-DIO-3	8	4	20						3	1
5X8-TRI	8	5	45		H	4	S	C-2-3-7-8	2	678
5X8-PEN	8	5	38		H	5	S	2-3-6	2	236
6AM8-PEN	9	4	37		H	5	S		3	8
6AM8-DIO	9	4	8						3	8
6AN8-PEN	9	4	37		H	5	S	1-2-6-7-8	2	678
6AN8-TRI	9	4	34		H	4	S	C-3-6-8	2	12
6AR8-PI	9	5	45		H	4	S		1	C36
6AR8-P2	9	5	45		H	5	S	C-1-2-6-7	1	368
6AS8-PEN	9	4	35		H	5	S		2	C127

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test	
					Cath-Htr		Inter-Element			
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)		
6AS8-DIO	9	4	10		H	5	S	C-2-3-7-8	3	6
6AU8-PEN	9	4	37		H	5	S	C-2-3-7-8	2	C78
6AU8-TRI	9	4	37		H	5	S	C-2-3-7-8	2	23
6AW8-PEN	9	4	46		H	5	S		1	C78
6AW8-TRI	9	4	44		H	7	S		1	23
6AX7-TRI-1	9	5	42	C	H	4	S	1-2-6-7	1	67
6AX7-TRI-2	9	5	42	C	H	5	S	C-1-2-7	1	12
6BA7	9	4	45		H	5	S	1-2	1	C127
6BC4	9	4	35	C-3-7-8	H	7	S	5	2	12
6BD4-A	9	2	16		H	5	S		2	C5
6BJ7-DIO-1	9	4	8		H	5	S	2-6-8	3	2
6BJ7-DIO-2	9	4	8						3	6
6BJ7-DIO-3	9	4	8						3	8
6BY6	9	4	45		H	3	S	1-5-6	1	156
6BZ6	9	3	37		H	4	S	1-5-6-7	2	1567
6CA5	9	4	45	5	H	3	S	2-6-7	1	267
6CG7-TRI-2	9	5	42		H	4	S	1-2-6-7	1	12
6CG7-TRI-1	9	5	42		H	4	S		1	67
6CM6	9	4	34	6	H	5	S	C-1-3	2	C13
6CR6-PEN	9	3	34		H	4	S	5-6-7	2	567
6CR6-DIO	9	3	0		H	7	S	C-4-5	3	2
6CU6	9	2	43		H	8	S	2-3-4-6	1	C45
7AK7	9	1	43		H	4	S	1-2-6-7	1	2346
7AU7-TRI-1	9	5	43	C	H	4	S		1	67
7AU7-TRI-2	9	5	43	C	H	4	S		1	12
12A6	11	2	41		H	7	S	3-4-5	1	345
12B4	11	4	46	37	H	5	S	C-2	1	C2
12B4-A	11	5	31	3-7	H	4	S	C-2	1	C
12BF6-TRI	11	3	40		H	4	S	1-5-6-7	1	17
12BF6-DIO-1	11	3	7		H	4	S		3	6

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test
					Cath-Htr		Inter-Element		
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)	
12BF6-DIO-2	11	3							
12BK5	11	4	45	7	H	5	S	S	3 5
12BT6-TRI	11	3	35		H	4	S	1-3-8	1 138
12BT6-DIO-1	11	3	10					1-5-6-7	2 17
12BT6-DIO-2	11	3	10						3 6
12BU6-TRI	11	3	35		H	4	S	1-5-6-7	3 5
12BU6-DIO-1	11	3	10						1 17
12BU6-DIO-2	11	3	10						3 6
12BY7	11	4	45	6	H	5	S	2-7-8	3 5
12CU6	11	7	45		H	2	S	3-4-5	1 278
12CU6	Plug special lead into pin 3 of 5 pin socket & connect to top cap								1 345
12G4	11	3	6	5	H	4	S	1-6	3 16
12L6	11	2	46		H	7	S	3-4-5	1 345
12W6	11	2	46		H	7	S	3-4-5	1 345
19-TRI-1	5	1	31					2-3-4-5	2 23
19-TRI-2	5	1	31						2 45
19X8-TRI	12	5	45		H	4	S	C-2-3-7-8	1 23
19X8-PEN	12	5	38						2 23
25AX4	13	7	41		H	8	S	5	2 C78
25CD6	13	2	46		H	7	S	C-5-8	1 5
483	8	1	41						1 C58
485	7	1	40		H	5	S	2-3	1 23
5678	3	3	5						1 23
5690-TRI-1	9	6	44		H	7	S	1-2-4	3 124
5690-TRI-2	9	1	44		H	2	S	5	1 5
5964-TRI-1	9	3	37		H	4	S	1-2-5-6	1 3
5964-TRI-2	9	3	37						2 25
5965-TRI-1	11	4	38	C	H	5	S	1-2-6-7	2 16
5965-TRI-2	11	4	38	C					2 67
6101-TRI-1	9	3	37		H	4	S	1-2-5-6	2 12

Tube Type	Fil. Sel.	Fil. Ret.	Tube Sel.	Tog. Down	Leakage or Short Test				Quality Test
					Cath-Htr		Inter-Element		
					Cir. Sel.	Tog. Up	Cir. Sel.	Toggles Up (Separately)	
6101-TRI-2	9	3	37						
6106-P1	8	2	35				S	4-6	2 16
6106-P2	8	2	35		H	7	S	C-3-4-5	1 4
6118-TRI	9	2	41						1 6
6118-DIO-1	9	2	0						C3
6118-DIO-2	9	2	0						4
6146	9	2	43	4-6	H	7	S	C-3-5	3 5
6197	9	4	45	8-C	H	5	S	2-3-6-7	1 C35
CK507-AX	3	3	0				S	1-2-4	1 2367
CK518-AX	3	3	0				S	1-2-4	3 124
CK521-AX	3	3	0				S	1-2-4	3 124
CK522-AX	3	3	0				S	1-2-4	3 124
CK524-AX	3	3	0				S	1-2-4	3 124
CK525-AX	3	3	0				S	1-2-4	3 124
CK526-AX	3	3	0				S	1-2-4	3 124
CK527-AX	3	3	0				S	1-2-4	3 124
CK528-AX	3	3	0				S	1-2-4	3 124
CK529-AX	3	3	0				S	1-2-4	3 124
CK533AX	3	3	0				S	1-2-4	3 124
CK5676	3	4	33				S	5-7	3 57
CK5744	9	3	10				S	1-4	3 14
CK5875	3	3	10				S	1-2-4	3 124
GL-5654	9	3	39	7	H	4	S	1-5-6	2 156
GL-5670-TRI-1	9	1	38		H	C	S	3-4-6-7	2 67
GL-5670-TRI-2	9	1	38						2 34
GL-5686	9	4	42	C-3-8	H	5	S	2-6-7	1 267
GL-5725	9	3	37		H	4	S	1-5-6	2 156
GL-5726-DIO-1	9	3	10		H	4	S	2-7	3 2
GL-5726-DIO-2	9	3	10						3 7
GL-5749	9	3	45		H	4	S	1-5-6	1 156