

**Tube Test Data For**

**CONAR**

**Tube Tester**

***Model 224***

**CONAR TUBE TESTER**  
**CONDENSED OPERATING INSTRUCTIONS**

1. Plug in the tester to a commercial 120 VAC line.
2. Locate the tube to be tested in the Tube Data Manual.
3. Set the A, B, and D controls as indicated.
4. Insert the tube into the proper socket.
5. Turn the Line Adjust control for a center-scale reading on the meter (Adjust Line).
6. Check filament (heater) continuity by moving the Lever switch listed under "C" in tube data to the TEST position. The lamp must light if the filament is good. If the lamp lights, place the Lever switch in the "C" (up) position and readjust the ADJUST LINE control.
7. Test for cathode shorts by placing the Lever switch(es) listed under CATH SHORTS to the TEST position. The lamp must NOT light. Return the switch(es) to the NORMAL position.
8. Test for element continuity by placing the Lever switches listed under CONT TEST (if any) one by one in the TEST position and then return the switches to the NORMAL position. The lamp should light for each switch designated.
9. Place each Lever switch indicated in the TEST column in the TEST position. The lamp must NOT light for any of these switches. Leave all switches in the TEST position.
10. If the tube passes all of the above tests, press the red pushbutton switch to read the relative condition of the tube on the meter.
11. Refer to the Operating Manual for more detailed instructions.

**CONAR INSTRUMENTS**

DIVISION OF NATIONAL RADIO INSTITUTE, WASHINGTON, D.C. 20016

**KEY TO LETTER ABBREVIATIONS INDICATING  
TUBE SECTION UNDER TEST**

a—Amp.	h—Heptode	o—Output	r—Rectifier	te—Tetrode
d—Diode	he—Hexode	p—Plate	s—Section	to—Total
e—Eye	i—Input	pe—Pentode	t—Triode	

TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST
0A4	4	18	-	14	2	5	1H5	d	1	2	2	16	5
0Z3	p	4	18	-	16	4		p	1	2	2	10	3-10
	p	4	18	-	16	4			4	2	2	70	10
	Cont test 1-8								4	2	2	94	10
0Z4	p	4	18	-	16	8			4	2	2	74	10
	p	4	18	-	16				1	2	7	10	2-3-4-6
1	3	8	1	20	3	2							
1AD2	4	2	*	90		10			4	2	*	34	.10
	*3-9-12												
	Cont test 1-2-5-6-7-8-11												
1AH5	pe	2	2	7	36	4-5-6	1S4		2	2	7	28	2-3-4-6
	d	1	2	7	20	3			Ignore glow on 2				
1AJ4	2	2	7	20		2-3-6			Cont test 1-2-5-6				
	Cont test 1-5												
1AN5	2	2	7	18		2-3-4-6	1S5	pe	1	2	1	10	4-5-6
	Cont test 1-5							d	1	2	1	20	3
1AU2	r	4	2	4	60	1-9			2	2	7	20	2-3-6
	Ignore glow on 9												
1AX2	4	2	*	42		10			Cont test 1-5				
	*2-5-8												
	Cont test 1-4-6-9												
1AY2	4	2	1	34		10							
	Insert tube into pins 1&6 of												
	9 pin socket												
1B3	4	2	2	44		10			Must show short on 1-9				
1B8	d	1	2	2	16	8			Ignore glow on 1-8				
	t	2	2	2	24	6-10			Good tube reads above 20				
	pe	2	2	2	20	3-4-5							
1BC2	4	2	5-8	34		10							
	Cont test 1-4-6-9												
1BG2	1	2	4	95		10							
	Insert bottom leads into pins												
	4&5 of 9 pin socket												
	Cap goes to top lead												
1BQ2	4	2	*	44		10							
	*2-5-8												
	Cont test 1-4-6-9												
1BY2	4	2	*	58		10							
	*8-12 - No short test												
	Good tube reads above 30												
1C5	2	2	2	18		3-4-5							
1DG3	4	1	3-5	80		10							
	No short test												
	Good tube reads above 20												
1DK29	1	2	4	95		10							
	Insert bottom leads into pins												
	4&5 of 9 pin socket												
	Cap goes to top lead												
1DN5	pe	2	2	1	26	2-3-6							
	d	1	2	1	66	4							
1E4	2	2	2	20		3-5							
1G3	4	2	2	42		10							

TUBE	A	B	C	D	CATH. SHORTS	TEST
2BU2	4	3	*	30	**	10
	*8-12					
	**1-2-5-7-9					
	Cont test	1-2-5-7-8-9-12				
2CN3	4	2	2	30		10
	Cont test	3-5				
2CW4	1	3	10	10	8	2-4
2CY5	2	4	3	14	2-7	1-5-6
2DL4	2	3	4	16	2	*
	*1-3-6-7-8-9					
	Ignore glow	on 1-3-6-7-8				
	Cont test	1-3-6-7-9				
2DS4	1	3	10	8	8	2-4
2DV4	1	3	10	8	7	1-2-4-6
	Ignore glow	on 1-4				
2DZ4	3	4	4	16	5	1-2-6-7
	Cont test	1-7 & 2-6				
2EG4	1	2	10	10	8	2-4
2EV5	3	3	3	26	2-7	1-5-6
	Cont test	2-7				
2FH5	2	4	3	14	1-7	2-5
	Cont test	1-7				
2FQ5	2	4	3	12	1-7	2-5
	Cont test	1-7				
2FS5	2	4	3	14	2-7	1-5-6
	Cont test	2-7				
2FV6	2	4	3	14	7	1-5-6
2FY5	2	4	3	14	1-7	2-5
	Cont test	1-7				
2GK5	2	4	3	14	1-7	2-5
	Cont test	1-7				
2GU5	2	4	4	14	2-7	1-5-6
	Cont test	2-7				
2GW5	t	2	4	3	16	5
	Ignore glow	on 2				
2HA5	3	4	4	14	2-7	1-5
	Cont test	2-7				
2HK5	2	4	4	14	2-7	1-5
	Cont test	2-7				
2HM5	3	4	4	14	2-7	1-5
	Cont test	2-7				
2HQ5	t	2	4	3	14	2-7
	Ignore glow	on 2-7				
2HR8	2	4	4	18	3	1-6-9
	Cont test	2-7				
2W3	2	4	2	20		4
2X3	3	4	2	30		4
2Y3	3	4	2	28		4
2Z2	3	4	1	40		2
3A3	4	5	2	58		10
3AL5	d	1	5	3	8	1
	d	1	5	3	8	2
3AT2	4	5	*	46		10
	*8-12					
	Cont test	1-2-5-6-8-9-12				
3AU6	3	5	3	14	7	1-2-5-6
3AV6	t	3	5	3	22	2
	d	1	5	3	16	5
	d	1	5	3	16	6
3AW2	4	5	*	26		10
	*8-12	- Cont test	2-5-6-9			

TUBE	A	B	C	D	CATH. SHORTS	TEST
3AW3	4	5	2	58		10
3BC5	2	5	3	14	2-7	1-5-6
	Cont test	2-7				
3BE6	to	2	5	3	16	2
	t	2	5	3	18	1-6
▲3BH2	4	4	*	31		10
	*2-4-8					
3BL2	4	5	*	50		10
	*8-12					
	Cont test	1-2-5-6-9				
3BM2	4	5	*	22		10
	*8-12					
	Cont test	2-5-6-8-9				
3BN2	4	5	*	34		10
	*8-12					
	Cont test	2-5-6-9				
3BN4	2	4	3	14	1-6	2-5-7
	Ignore glow	on 2				
	Cont test	2-7				
3BN6	4	5	3	38	1	2-5-6-7
3BS2	4	5	*	28		10
	*8-12					
	Cont test	2-5-6-9				
3BT2	4	4	*	37	**	10
	*8-12					
	**1-2-5-6-9					
	Cont test	1-2-5-6-8-9-12				
3BU8	s	2	5	4	14	1
	s	2	5	4	14	2-3-6-7
3BW2	4	4	*	37	**	10
	*8-12					
	**1-2-5-6-9					
	Cont test	1-2-5-6-8-9-12				
3BY6	s	3	5	3	16	2
	s	3	5	3	16	1-5-6-7
3BY7	2	5	4	14	1-3	2-7-8
	Cont test	1-3				
3BZ6	2	5	3	14	2	1-5-6-7
3CA3	d	4	5	2	45	10
3CB6	2	5	3	14	2	1-5-6-7
3CE5	2	5	3	14	2-7	1-5-6
	Cont test	2-7				
3CF6	2	5	3	14	2	1-5-6-7
3CN3	4	5	2	30		10
	Cont test	3-5				
3CU3	4	5	2	28		10
	Cont test	8				
3CX3	4	5	3	34	*	10
	*3-4-6-8					
3CY3	4	5	2	36	*	10
	*1-2-3-5-7					
	Must show short	on 1-2-3-5-7				
3CY5	2	4	3	14	2-7	1-5-6
3CZ3	4	5	2	38	*	10
	*2-7-8					
3D6	2	2	7	16		2-3-6
	Cont test	1-8				
3DB3	4	5	2	52	*	10
	*1-2-3-5-7					
3DC3	4	4	2	28		10
	Must show short	1-2-3-5-7				

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
3DF3	4	5	3-5	24		10	3KF8	pe	3	6	4	14	1	2-3-6-7	
	Good tube reads above 30							pe	3	6	4	14	1	2-7-8-9	
	No short test							2	5	4	16	1-3	2-7-8		
3DG4	p	2	5	1	14	7	3KT6	3	5	3	16	2	1-5-6		
	p	2	5	1	14	5	3M-P26	2	5	3	18	2	1-5-6-7		
3DH3	4	5	3-5	36		10	3M-R24	2	5	3	18	2	1-5-6-7		
	Cont test 3-4-5-6-8						3M-V7	2	5	3	18	2	1-5-6-7		
	No short test					5	3Q4	2	2	5	18		2-3-4-6		
3DJ3	1	3	2	88		10		Ignore glow on 2							
	Good tube reads above 20							Cont test 1-2-6-7							
	No short test						3Q5	3	2	8	26		3-4-5		
3DK6	2	5	3	14	2	1-5-6-7		Cont test 2-7							
3DS3	4	5	35	36		10	3S4	2	2	5	18		2-3-4-6		
	No short test							Ignore glow on 2							
3DT6	2	5	3	16	2	1-5-6-7		Cont test 1-2-6-7							
3DZ4	3	5	4	16	5	1-2-6-7	3V4	2	2	5	18		2-3-6		
	Cont test 1-7 & 2-6							Cont test 1-7							
3EH7	2	5	4	17	1-3	2-7-8-9	4AB8	t	2	6	4	18	3	1-2	
	Cont test 1-3							pe	2	6	4	16		6-8-9	
3EJ7	2	5	4	12	1-3	2-7-8-9	4AF4	2	6	3	14	5	1-2-6-7		
	Cont test 1-3							Ignore glow on 1-2							
3ER5	2	4	3	14	1-7	2-5-6		Cont test 1-2-6-7							
	Cont test 1-7						4AU6	3	6	3	14	7	1-2-5-6		
3ES5	2	5	3	14	1-7	2-5-6	4AV6	t	2	6	3	16		1-7	
	Cont test 1-7							d	1	6	3	16		5	
3EV5	1	4	3	10	2-7	1-5-6		d	1	6	3	16		6	
	Cont test 2-7						4BC5	2	6	3	14	2-7	1-5-6		
3FH5	2	5	3	14	1-7	2-5	4BC8	t	2	6	4	14	8	6-7	
	Cont test 1-7							t	2	6	4	14	3	1-2	
3FQ5	2	4	3	14	1-7	2-5	4BE6	to	2	6	3	16	2	1-5-6-7	
	Cont test 1-7							t	2	6	3	20		1-6	
3FS5	2	5	3	14	2-7	1-5-6	4BL8	t	2	7	4	14	8	1-9	
	Cont test 2-7							p	2	7	4	14	7	2-3-6	
3FY5	2	5	3	14	1-7	2-5	4BN4	2	6	3	14	1-6	2-5-7		
	Cont test 1-7							Cont test 1-2-6-7							
3GK5	2	4	3	14	1-7	2-5		Ignore glow on 2							
	Cont test 1-7						4BN6	4	6	3	38	1	2-5-6-7		
3GS8	pe	2	5	4	14	1	4BQ7	t	2	6	4	14	8	6-7	
	pe	2	5	4	14			t	2	6	4	14	3	1-2	
3GU5	2	5	4	14	2-7	1-5-6	4BS8	t	2	6	4	14	8	6-7	
	Cont test 2-7							t	2	6	4	14	3	1-2	
3GW5	t	2	4	3	16	5	4BU8	pe	2	6	4	14	1	2-7-8-9	
	Ignore glow on 2							pe	2	6	4	14		2-3-6-7	
3HA5	3	5	4	14	2-7	1-5	4BX8	t	2	6	4	14	8	6-7	
	Cont test 2-7							t	2	6	4	14	3	1-2	
3HK5	2	5	4	14	2-7	1-5	4BZ6	2	6	3	14	2	1-5-6-7		
	Cont test 2-7							4BZ7	t	2	6	4	14	8	6-7
3HM5	3	5	4	14	2-7	1-5	4BZ8	t	2	6	4	14	8	1-2	
	Cont test 2-7							t	2	6	4	14	3	6-7	
3HM6	pe	3	5	4	14	1-3	4CB6	2	6	3	14	2	1-5-6-7		
	t	2	5	3	14	2-7	4CE5	2	6	3	14	2-7	1-5-6		
3HQ5		Ignore glow on 2-7					4CY5	2	7	3	14	2-7	1-5-6		
	pe	3	5	4	18	1		Cont test 2-7							
3HS8	pe	3	5	4	18	1		4DE6	2	6	3	14	2	1-5-6	
	pe	3	5	4	18	1		4DK6	2	6	3	14	2	1-5-6-7	
3HT6	p	3	4	4	14	1-3		4DT6	2	6	3	14	2	1-5-6-7	
	Ignore glow on 1							4EH7	2	6	4	17	1-3	2-7-8-9	
3JC6	2	5	5	14	1-3	2-7-8			Cont test 1-3						
	Cont test 1-3							4EJ7	2	6	4	12	1-3	2-7-8-9	
3JD6	3	5	5	14	1-3	2-7-8		Cont test 1-3							
	Cont test 1-3								Cont test 1-3						

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TUBE		A	B	C	D	CATH SHORTS	TEST	TUBE		A	B	C	D	CATH SHORTS	TEST
4ES8	t	2	6	4	12	8	6-7	4LJ8	t	2	6	4	14	3-8	1-2
	t	2	6	4	12	3	1-2		pe	3	6	4	14		6-7-9
4EW6		2	6	3	12	2	1-5-6		Cont	test	3	8			
4GJ7	t	2	6	4	14	1-3	8-9	4LU6		2	6	3	18	2	1-5-6-7
	pe	3	6	4	14		2-6-7	4MK8	pe	2	6	4	16	1	2-7-8
	Cont	test	1-3					pe	2	6	4	16		2-3-7	
4GK5		2	6	4	14	1-7	2-5	4M-P12		2	6	3	18	2	1-5-6
	Cont	test	1-7					4M-P26		3	6	3	16	2	1-5-6
4GM6		2	6	3	12	2	1-5-6-7	4R-HH2	t	2	6	4	14	8	6-7
4GS7	t	2	6	4	18	3-8	1-2		t	2	6	4	14	3	1-2
	pe	2	6	4	16		6-7-9	4R-HH8	t	2	6	4	16	8	6-7
	Cont	test	3-8					5AF4	t	2	6	4	16	3	1-2
4GS8	pe	2	6	4	14	1	2-7-8-9		2	7	3	14	5	1-2-6-7	
	pe	2	6	4	14		2-3-6-7		Ignore	glow	on	1-2			
4GW5	t	2	6	3	16	5	1-2-6		Cont	test	1-2-6-7				
	Ignore	glow	on	2				5AM8	pe	2	7	4	14	1	2-3-6-9
4GX6	1	6	4	8	2		1-5-6-7		d	1	7	4	8	7	8
4GX7	t	2	6	4	16	1	8-9	5AN8	t	2	7	4	16	3	1-2
	pe	3	6	4	14	3	2-6-7		pe	2	7	4	16	9	6-7-8
	Ignore	glow	on	1-3				5AQ4	pe	4	7	2	12		4
4GZ5		3	6	4	14	1	2-5-6-7		pe	4	7	2	12		6
	Cont	test	2-5					5AQ5	3	7	3	20	2	1-5-6-7	
4HA5	t	2	6	3	70	2-7	5-6		Ignore	glow	on	1			
	Ignore	glow	on	7					Cont	test	1-7				
4HA7	pe	2	6	12	18	3	2-11	5AR4	p	4	7	2	12		4
	pe	2	6	12	18	4	9-10		p	4	7	2	12		6
4HC7	t	2	6	1	18	4	7-9-10	5AS4	p	3	7	2	14		4
	t	2	6	1	18	3	2-11		p	3	7	2	8		6
	Ignore	glow	on	7-10				5AS8	pe	2	7	4	12	3	1-2-9
4HG8	t	2	6	4	14	1	6-7		d	1	7	4	8	8	6
	pe	2	6	4	14	1	2-8-9	5AT8	t	2	7	4	14	3	1-2
	Ignore	glow	on	1					pe	2	7	4	14		6-7-8-9
4HK5		2	6	4	14	2-7	1-5	5AU4	p	4	7	2	14		4
	Cont	test	2-7						p	4	7	2	14		6
4HM5	t	2	6	4	14	2-7	1-5	5AV8	t	2	7	4	14	1	2-3
	Ignore	glow	on	2					pe	2	7	4	14	7	6-8-9
4HM6		2	6	5	14	1-3	2-7-8-9	5AW4	p	4	7	2	14		4
	Cont	test	1-3						p	4	7	2	14		6
4HQ5	t	2	6	3	14	2-7	1-5	5AX4	p	3	7	2	32		4
	Ignore	glow	on	2-7					p	3	7	2	32		6
4HS8	pe	2	6	4	14	1	2-7-8-9	5AZ4	p	3	7	2	34		4
	pe	2	6	4	14		2-3-6-7		p	3	7	2	34		6
4HT6	p	3	6	4	14	1-3	2-7-8-9	5B8	t	2	7	4	14	1-7	2-3
	Ignore	glow	on	1					pe	2	7	4	14		6-8-9
4JC6		2	6	5	14	1-3	2-7-8-9	●5BC3		3	7	3	18		5-6-8-9
	Cont	test	1-3					Cont	test	5-6	&	8-9			
4JD6		3	6	5	14	1-3	2-7-8-9	5BC8	t	2	7	4	14	8	6-7
	Cont	test	1-3						t	2	7	4	14	3	1-2
4JH6		3	6	3	14	2	1-5-6	5BE8	t	2	7	4	14	3	1-2
4JK6		2	6	4	14	2	1-5-6-7		pe	2	7	4	14	8	6-7-9
4JK8	t	2	6	5	14	3	1-2	5BK7	t	2	7	4	14	8	6-7
	t	1	6	5	8	8	6-7		t	2	7	4	14	3	1-2
4JL6		3	6	4	14	2	1-5-6-7	5BQ7	t	2	8	4	14	8	6-7
4KE8	pe	2	6	5	14	7	2-3-6		t	2	8	4	14	3	1-2
	t	2	6	5	16	8	1-9	5BR8	t	2	7	4	14	3	1-2
4KF8	pe	3	6	4	14	1	2-3-6-7		pe	2	7	4	14	8	6-7-9
	pe	3	6	4	14	1	2-7-8-9	5BS8	t	2	7	4	14	8	6-7
4KN8	t	2	6	4	16	8	6-7		t	2	7	4	14	3	1-2
	t	2	6	4	16	3	1-2								
4KT6		2	6	4	16	1-3	2-7-8								

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TUBE		A	B	C	D	CATH SHORTS	TEST			A	B	C	D	CATH SHORTS	TEST		
5BT8	pe	2	7	4	14	9	6-7-8			5HA7	t	2	7	12	18	4	9-10
	d	1	7	4	10	3	2			5HB7	t	2	7	12	18	3	2-11
	d	1	7	4	10		1			5HC7	t	2	7	4	14	1-3	8-9
5BW8	pe	2	7	4	14	7	6-8-9				pe	2	7	4	14		2-6-7
	d	1	7	4	8	2	3			Cont	test	1-3					
	d	1	7	4	8		1			5HG8	t	2	7	1	18	4	7-9-10
	May	show	short	on	7						t	2	7	1	18	3	2-11
5BZ7	t	2	8	4	14	8	6-7			5HZ6	Ignore	glow	on	7-10			
	t	2	8	4	14	3	1-2			5J6	t	2	7	3	14	7	
5CG8	t	2	7	4	14	3-8	1-2			5JK6	t	2	7	4	14	2	
	pe	2	7	4	14		6-7-9			5JK8	t	2	7	5	14	3	
	Cont	test	3-8								t	1	7	5	8	8	
5CL8	t	2	7	4	14	3	1-2			5JL6	pe	2	7	4	14	2	
	te	2	7	4	14	8	6-7-9			5KD8	pe	2	7	5	16	7	
5CM6	2	7	4	16	7		1-3-6-9			5KE8	pe	2	7	5	16	8	
	Ignore	glow	on	3						5KZ8	t	2	7	5	16	8	
	Cont	test	3-6							5LJ8	pe	2	7	4	14	3	
5CM8	t	2	7	4	16	8	1-9				t	2	7	4	14	3-8	
	pe	2	7	4	14	3	2-6-7				p	3	7	4	14	3-8	
5CQ8	t	2	7	4	14	8	1-9			5MB8	t	2	7	4	16	3	
	te	2	7	4	14	7	2-3-6			5MF8	pe	2	7	4	16	8	
5CR8	t	2	8	4	16	8	1-9				t	2	6	1	16	11	
	pe	2	8	4	14	3	2-6-7				pe	2	6	1	16	9	
5CX8	t	2	7	4	16	1	2-3			5M-HH3	Ignore	glow	on	6			
	pe	2	7	4	14	6	7-8-9			Cont	test	6-7					
5CZ5	3	7	4	20	7		1-3-6-9			5MK9	t	2	7	3	14	7	
	Ignore	glow	on	3						5MQ8	t	2	7	4	21	8	
	Cont	test	3-6								pe	2	7	4	23	7	
5DH8	t	3	7	4	16	3	1-2			5R4	p	4	7	2	14		
	pe	3	7	4	16	8	6-7-9			5R-DDH1	p	4	7	2	14		
5DJ4	p	4	7	7-8	14		3-4				d	2	6	4	20	2	
	p	4	7	7-8	14		5-6			5R-HR1	t	2	6	4	18	3	
	Cont	test	3-4 & 5-6								pe	2	7	4	16		
5EA8	pe	2	7	4	14	7	2-3-6			5R-K16	d	2	7	4	24		
	t	2	7	4	14	8	1-9			5T4	d	2	7	4	24		
5EH8	pe	3	7	4	14	1-6	7-8-9			5T8	p	4	7	2	14		
	t	3	7	4	14		2-3				t	3	7	4	28	7	
	Cont	test	1-6								d	1	7	4	8	3	
5ES8	t	2	7	4	12	8	6-7				d	1	7	4	8		
	t	2	7	4	12	3	1-2				d	1	7	4	8		
5EU8	t	2	6	4	12	6	2-3				d	1	7	4	8		
	pe	2	6	4	12	8	1-7-9				d	2	6	4	18		
5EW6	2	7	3	12	2		1-5-6				d	2	6	4	20	2	
5FG7	t	2	7	4	12	3-8	1-2			5R-HR1	t	2	7	4	18	8	
	pe	2	7	4	12		6-7-9				pe	2	7	4	16		
5FV8	t	2	7	4	14	3	1-2			5R-K16	d	2	7	4	24		
	pe	2	7	4	14	8	6-7-9				d	2	7	4	24		
5GH8	t	2	6	4	12	8	1-9			5T4	p	4	7	2	14		
	pe	2	6	4	12	7	2-3-6			5T8	p	4	7	2	14		
5GJ7	t	2	7	4	14	1-3	8-9				t	3	7	4	28	7	
	pe	3	7	4	14		2-6-7				d	1	7	4	8	3	
	Cont	test	1-3								d	1	7	4	8		
5GM6	2	7	3	12	2		1-5-6-7				d	1	7	4	8		
5GS7	t	2	7	4	18	38	1-2				d	4	7	2	14		
	pe	2	7	4	16		6-7-9			5U4	p	4	7	2	14		
	Cont	test	3-8								d	4	7	2	14		
5GX6	1	7	4	8	2		1-5-6-7			5U8	t	2	7	4	14	8	
5GX7	t	2	7	4	16	1	8-9			5U9	pe	2	7	4	14		
	pe	3	7	4	14	3	2-6-7				t	2	8	5	18	1	
	Ignore	glow	on	1-3							pe	2	8	5	16	2	

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TUBE		A	B	C	D	CATH SHORTS	TEST	TUBE		A	B	C	D	CATH SHORTS	TEST	
5V3	p	4	7	2	14		4	6AG7	t	3	8	2	14	5	1-4-6-8	
	p	4	7	2	14		6	6AG9	pe	2	8	1	16	6	5-7	
5V4	p	4	7	2	12		4	6AG11	d	1	8	1	16	9	2-10-11	
	p	4	7	2	12		6		d	1	8	1	8	2	3	
5V6		3	7	2	20	8	3-4-5		t	2	8	1	14	4	10	
5V9	t	2	7	5	16	9	8-10		t	2	8	1	14	9	5-6	
	h	2	7	5	18	1	3-4-7	6AH4		3	8	2	16	8	7-8	
5W4	p	4	7	2	14		4	6AH5		3	8	2	18	8	1-5	
	p	4	7	2	14		6	6AH6		3	8	3	14	7	1-4-6	
5X4	p	3	7	7	24		3	6AH9	t	2	8	1	18	4	1-2-5-6	
	p	3	7	7	24		5		pe	2	8	1	16	7	2-3	
5X8	t	2	7	4	14	6	2-3		Ignore glow on	5					5-6-8-11	
	pe	2	7	4	14		1-7-8-9	6AJ4		2	8	7	14	2	*	
5X9	t	2	8	5	16	1	9-10		*1-3-4-5-6-9							
	pe	2	8	5	16	2	3-7-8		Ignore glow on	1-3-4-6						
5Y3	p	4	7	2	14		4	6AJ5	Cont test	1-3-4-6-9						
	p	4	7	2	14		6		2	8	3	14	2-7	1-5-6		
5Y4	p	4	7	7	14		3	6AJ7	Cont test	2-7						
	p	4	7	7	14		5	6AJ8		3	8	2	14	5	3-4-6-8	
5Z3	p	4	7	1	12		2		he	2	8	5	14	3	1-2-6-7	
	p	4	7	1	12		3	6AJ9	t	2	8	5	16		8-9	
5Z4	p	4	7	2	14		4		pe	2	8	5	18	1	9-10	
	p	4	7	2	14		6	6AK5		2	8	3	16	2-7	3-7-8	
6A7	to	2	8	1	16	6	*		Cont test	2-7					1-5-6	
	t	2	8	1	16		4-5	6AK6		3	8	3	22	7	1-2-5-6	
*2-3-4-5-10								6AK7		3	8	2	16	5	1-4-6-8	
6AB4		2	8	3	14	7	1-6	6AK8	t	3	8	4	20	7	8-9	
6AC5		3	8	2	22	8	3-5		d	1	8	4	14		6	
6AC7		3	8	2	14	5	3-4-6-8		d	1	8	4	8	3	2	
6AC9	pe	2	8	12	16	8	9-10-11		d	1	8	4	8		1	
	d	1	8	12	10	4	2	6AK9	t	2	8	1	20	7	2-3	
	Cont test	3							pe	2	8	1	20	7	5-8-9	
6AC10	t	2	8	12	16	4	9-10		t	2	8	1	20	7	10-11	
	t	2	8	12	16	6	5-7	6AK10	t	2	8	1	20	4	9-10	
	t	2	8	12	16	3	2-11		t	2	8	1	20	6	5-7	
6AD5		3	8	2	20	8	3-5	6AL3		2	8	4	12	10	2-11	
6AD6	e	4	8	2	0	8	3-4-5		Ignore glow on	3-8					3-8-9	
	See instructions for eye test							6AL5		d	1	8	3	8	7	
6AD7	t	2	8	2	30	8	1-6		d	1	8	3	8		2	
	pe	3	8	2	24		3-4-5	6AL6		3	8	2	20	8	4-5-10	
6AD10	pe	2	8	12	16	2	3-6-7	6AL7	e	1	8	*	0	8	**	
	pe	2	8	12	16	9	8-10-11		*2-4-5-6							
6AF3		3	8	4	26	10	2-9		**1-3-4-5-6							
	Ignore glow on	2						6AL9	See instructions for eye test							
	Cont test	2-9							t	2	8	1	20	6	5-7	
6AF4		2	8	3	14	5	1-2-6-7	6AL10	pe	2	8	1	20	9	2-4-10-11	
	Ignore glow on	1-2							pe	2	8	1	20	9	8-10-11	
	Cont test	1-2-6-7						6AL11	pe	3	8	12	14	9	3-4-6-7	
6AF5		2	8	2	16	8	3-5		pe	2	8	12	16	2	*	
6AF6	e	4	8	2	0	8	3-4-5	6AM4		2	8	7	14	2		
	See instructions for eye test								*1-3-4-5-6-9							
6AF9	pe	2	8	5	16	7	8-9-10		Ignore glow on	1-3-4-6						
	pe	2	8	5	16	2	1-3-4	6AM6	Cont test	1-3-4-6-9						
	Cont test	2						6AM8		2	8	3	14	2	1-5-6-7	
6AF11	t	2	8	12	16	7	3-4		pe	2	8	4	14	1	2-3-6-9	
	t	2	8	12	16	5	6-8		d	1	8	4	8	7	8	
	pe	2	8	12	14	9	2-10-11									
6AG5		3	8	3	18	2-7	1-5-6									
	Cont test	2-7														
6AG6		2	8	2	14	8	3-4-5									

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TUBE		A	B	C	D	CATH SHORTS	TEST	TUBE		A	B	C	D	CATH SHORTS	TEST
6AN8	t	2	8	4	16	3	1-2	6AX7	t	3	5	9	20	8	6-7
	pe	2	8	4	16	9	6-7-8		t	3	5	9	20	3	1-2
6AQ4		2	8	3	16	25	1-6-7		Cont test	4-5					
	Ignore glow on 1							6AX8	t	2	8	4	14	8	1-9
	Cont test 1-2-5-6								pe	2	8	4	14	7	2-3-6
6AQ5		3	8	3	20	2	1-5-6-7	● 6AY3	4	8	4	14	9	2-7	
	Ignore glow on 1								Ignore glow on 2	2-7					
	Cont test 1-7							6AY11	d	1	8	1	10	2	3
6AQ6	t	1	8	3	8	2	1-7		d	1	8	1	10	11	10
	d	1	8	3	18		5		t	2	8	1	14	4	5-6
	d	1	8	3	18		6		t	2	8	1	14	9	7-8
6AQ7	t	1	8	7	10	6	4-5	6AZ8	t	2	8	4	14	7	8-9
	d	1	8	7	12	2	3		p	2	8	4	14	3	1-2-6
	d	1	8	7	12		1	6B10	t	2	8	12	16	2	3-4
6AQ8	t	2	8	5	14	8	6-7		t	2	8	12	16	7	5-6
	t	2	8	5	14	3	1-2		d	1	8	12	10	9	8
6AR5	3	8	3	22	2		1-5-6	6B32	d	1	8	3	8	1	10
6AR6	3	8	6	20	1		3-5-7		d	1	8	3	8	5	7
6AR8	2	8	4	14	7		3-6	● 6BA3	3	8	5	18	9	2-7	
6AR11	pe	2	8	12	14	6	2-3-4-5		Cont test	2-7					
	pe	2	8	12	14	11	7-8-9-10	6BA8	t	3	8	4	16	1	2-3
6AS5	1	8	3	8	1		2-5-6-7		pe	2	8	4	14	6	7-8-9
	Ignore glow on 2							6BA11	pe	2	8	12	16	8	2-3-4-5
	Cont test 2-5								pe	2	8	12	16	8	3-4-6-7
6AS6	3	8	3	16	2		1-5-6-7	▲ 6B-B14	t	2	8	12	18	10	9-11
6AS7	t	3	8	7	16	3	1-2		2	8	4	14	38	*	
	t	3	8	7	16	6	4-5		*1-2-6-7-10						
6AS8	pe	2	8	4	14	3	1-2-9		Ignore glow on 1-6						
	d	1	8	4	8	8	6		Cont test 1-2-3-6-7-8						
6AS11	t	2	8	1	16	7	3-4	6BC4	2	8	4	14	6	*	
	t	2	8	1	14	5	6-8		*1-2-3-7-8-9						
	pe	2	8	1	16	9	2-10-11		Ignore glow on 1-2-3-7						
6AT6	t	1	8	3	8	2	1-7		Cont test 1-2-3-7-8-9						
	d	1	8	3	16		5	6BC5	2	8	3	14	2-7	1-5-6	
	d	1	8	3	16		6		Cont test 2-7						
6AT8	t	2	8	4	14	3	1-2	6BC7	d	1	8	4	8	9	8
	pe	2	8	4	14		6-7-8-9		d	1	8	4	8	7	6
6AU4	2	8	7	14	3		5	6BC8	d	1	8	4	8	1	2
6AU5	3	8	2	18	3		1-5-8		t	2	8	4	14	8	6-7
6AU6	3	8	3	18	7		1-2-5-6	6BD6	t	2	8	3	17	7	1-2-5-6
6AU7	t	3	5	9	20	8	6-7	6BD11	t	3	8	1	18	7	3-4
	t	3	5	9	20	3	1-2		t	2	8	1	14	5	6-8
	Cont test 4-5							6BE3	pe	2	8	1	14	4-10	
6AU8	t	2	8	4	14	1	2-3		Ignore glow on 4						
	pe	2	8	4	14	6	7-8-9	6BE6	to	2	8	3	14	2	1-5-6-7
6AV5	3	8	2	18	3		1-5-8		t	2	8	3	16		1-6
6AV6	t	3	8	3	18	2	1-7	6BE7	2	8	4	16	38	1-6-7	
	d	1	8	3	16		5		Cont test 3-8						
	d	1	8	3	16		6	6BE8	t	2	8	4	14	3	1-2
-6AV11	t	2	8	1	16	3	2-11		p	2	8	4	14	8	6-7-9
	t	2	8	1	16	6	5-7	6BF5	3	8	3	16	2	1-5-6-7	
	t	2	8	1	16	4	9-10		Ignore glow on 1						
6AW6	2	8	3	14	2		1-5-6-7	6BF6	Cont test 1-7						
6AW8	t	2	8	4	14	1	2-3		t	3	8	3	22	2	1-7
	pe	2	8	4	14	6	7-8-9		d	1	8	3	18		5
6AX3	3	8	1	16	7		4-10		d	1	8	3	18		6
	Ignore glow on 4														
	Cont test 4-10														
6AX4	4	8	7	14	3		5								
6AX5	p	4	8	2	14	8	5								
	p	4	8	2	14		3								

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TUBE		A	B	C	D	CATH SHORTS	TEST		A	B	C	D	CATH SHORTS	TEST	
6BF8	d	2	8	5	16		1	6BN8	t	2	8	4	14	9	7-8
	d	2	8	5	16		2		d	1	8	4	8	3	6
	d	2	8	5	16		3		d	1	8	4	8	2	1
	d	2	8	5	16		7	6BN11	pe	2	8	12	16	8	7-9-11
	d	2	8	5	16		8		pe	2	8	12	16	2	3-4-5
	d	2	8	5	16		9	6BQ5	3	8	4	18	3	1-2-7-9	
6BF11	pe	2	8	12	16	2	3-5-6-7		Ignore glow on 1						
	pe	3	8	12	14	9	8-10-11		Cont test 1-2						
6BG6	3	8	2	18	3		5-8-10	6BQ6	3	8	2	18	8	4-5-10	
● 6BH3	4	8	5	14	9		2-7	6BQ7	t	2	8	4	14	8	6-7
	Ignore glow on 2								t	2	8	4	14	3	1-2
6BH6	2	8	3	14	2		1-5-6	6BR3	3	8	4	26	10	2-9	
6BH8	t	2	8	4	14	1	2-3		Ignore glow on 2						
	pe	2	8	4	14	6	7-8-9		Cont test 2-9						
6BH11	t	2	8	1	14	2	3-4	6BR5	t	3	8	4	26	2	1-7
	t	2	8	1	14	5	6-7		e	4	8	4	0		
	pe	2	8	1	14	11	8-9-10		May show short on 3-6-9 - throw 7						
6BJ3	1	8	1	8	7		4-10		to test, then 3-6-9 together						
	Ignore glow on 4								See instructions for eye test						
6BJ6	2	8	3	14	2		1-5-6-7	6BR7	t	2	5	9	14	3	1-2
6BJ7	d	1	8	4	8	9			d	1	5	9	10	8	7
	d	1	8	4	8	7			d	1	5	9	10		6
	d	1	8	4	8	1		6BR8	t	2	8	4	14	3	1-2
6BJ8	t	2	8	4	14	9	7-8		pe	2	8	4	14	8	6-7-9
	d	1	8	4	8	3			d	4	8	4	14	9	2-7
6BK4	d	1	8	4	8	2		● 6BS3	Ignore glow on 2						
	1	8	7	10	*		5-10		t	2	8	4	14	8	6-7
<b>*1-3-4-6-8</b>															
May show short on 1-3-4-6-8															
Must show short on 1-3-4															
Good tube reads above 30															
6BK5	2	8	4	14	6		1-3-7-8	6BS8	t	2	8	4	14	8	6-7
	Ignore glow on 3								t	2	8	4	14	3	1-2
	Cont test 3-7							6BT6	t	2	8	3	18	2	1-7
6BK6	t	3	8	3	16	2	1-7		d	1	8	3	18		5
	d	1	8	3	8		6		d	1	8	3	18		6
	d	1	8	3	8		5	6BT8	d	1	8	3	18		6
6BK7	t	2	8	4	14	8	6-7		pe	2	8	4	14	9	6-7-8
	t	2	8	4	14	3			d	1	8	4	10	3	2
6BK8	2	8	4	18	3		1-6-9	6BU6	d	1	8	3	22	2	1-7
6BK11	t	2	8	12	20	4	9-10		d	1	8	3	12		6
	t	2	8	12	20	6		6BU8	pe	2	8	4	14	1	2-7-8-9
	t	2	8	12	20	3	5-7		pe	2	8	4	14		2-3-6-7
6BL7	t	3	8	7	12	3	1-2	6BV8	t	2	8	4	14	1	2-3
	t	3	8	7	12	6	4-5		d	1	8	4	8	7	9
6BL8	t	2	7	4	14	8	1-9		d	1	8	4	8	8	6
	p	2	7	4	14	7	2-3-6	6BV11	pe	2	8	1	16	8	7-9-10
6BM8	t	2	8	4	14	8	1-9		pe	2	8	1	16	5	3-4-6
	pe	2	8	4	14	2	3-6-7	6BW3	3	8	12	16	7	4-10	
6BN4	2	8	3	14	1-6		2-5-7		Ignore glow on 4						
	Ignore glow on 2							6BW4	p	3	8	4	22	9	7
	Cont test 2-7								p	3	8	4	22		1
6BN5	3	8	4	18	3		*	6BW8	pe	2	8	4	14	7	6-8-9
	Ignore glow on 1-6								d	1	8	4	8	2	3
	Cont test 1-2-6-8								d	1	8	4	8		1
6BN6	4	8	3	38	1		2-5-6-7	6BW11	May show short on 7						
6BN7	t	3	8	4	16	6			pe	2	8	1	16	10	8-9-11
	t	2	8	4	18	3	7-9		pe	2	8	1	16	2	3-4-5
	1-2							6BX6	2	7	4	14	1-3	2-7-8	
									Must show short on 1-3						
									Cathode short test - throw 1-3 together						

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TUBE	A	B	C	D	CATH SHORTS	TEST
6BX7	t	2	8	7	14	6
	t	2	8	7	14	3
6BX8	t	2	8	4	14	8
	t	2	8	4	14	3
6BY5	p	3	8	2	20	8
	p	3	8	2	20	1
6BY6	s	3	8	3	16	2
	s	3	8	3	16	
6BY7		2	8	4	14	1-3
		Must show short on			1-3	- Cathode
		short test - throw			1-3	together
6BY8	pe	3	8	4	16	9
	d	1	8	4	8	3
6BY11	pe	2	8	1	16	2
	pe	2	8	1	16	9
6BZ3	.	4	8	1	12	7
	.	4	8	1	12	
6BZ6	Ignore glow on	4				
6BZ7	t	2	8	3	14	2
	t	2	8	4	14	8
6BZ8	t	2	8	4	14	3
	t	2	8	4	14	8
6C4	.	2	8	3	16	7
	.	2	8	3	16	
6C5	Ignore glow on	1				
6C9	Cont test 1-5					
	t	2	8	2	16	8
	te	3	8	5	14	10
	te	3	8	5	14	6
6C10	t	2	8	12	16	3
	t	2	8	12	16	6
	t	2	8	12	16	4
6CA4	p	3	8	4	18	3
	p	3	8	4	18	
6CA5	.	3	8	3	18	1
	.	3	8	3	18	
6CA7	Ignore glow on	2				
6CA11	Cont test 2-5					
	t	3	8	7	16	8
	t	1	8	1	10	7
	t	1	8	1	10	5
	pe	1	8	1	10	9
	May show short	7				
6CB6	t	2	8	3	14	2
6CD3	.	4	8	12	14	7
	.	4	8	12	14	
6CD6	Ignore glow on	4				
6CE3	.	3	8	2	16	3
	.	4	8	12	14	7
6CE5	Ignore glow on	4				
	2	8	3	14	2-7	
	Cont test 2-7					
6CF6	2	8	3	14	2	1-5-6-7
6CF8	2	8	4	16	3	1-6-9
	Cont test 2-7					
6CG3	4	8	12	14	7	4-10
	Ignore glow on	4				
6CG7	t	3	8	4	22	8
	t	3	8	4	22	3
6CG8	t	2	8	4	14	3-8
	pe	2	8	4	14	
	Cont test 3-8					
●6CH3	3	8	4	14	9	2-7
	Ignore glow on	2	- Cont test	2-7		

TUBE	A	B	C	D	CATH SHORTS	TEST
6CH6		3	8	4	14	3
6CH7	t	2	8	4	14	8-9
	t	2	8	4	3	6-7
	Cont test	8-9				1-2
6CH8	t	2	8	4	16	1
	pe	2	8	4	14	6
●6CJ3	4	8	4	12	9	2-3-7
	Ignore glow on	2				2-7
6CJ6	3	8	4	12	3	2-7-8-10
	Ignore glow on	7				
	Cont test	1-6-7-8-9				
●6CK3	4	8	4	14	9	2-7
	Ignore glow on	2				
	Cont test	2-7				
6CK4	2	8	2	14	8	1-3-5
	Ignore glow on	1				
	Cont test	1-3				
●6CL3	4	8	4	14	9	2-7
	Ignore glow on	2				
	Cont test	2-7				
6CL5	3	8	2	14	3-6	*
	*1-4-5-8-10					
	Ignore glow on	1-4				
	Cont test	1-3-4-5-6-8				
6CL6	2	8	4	14	1	2-3-8-9
	Ignore glow on	2-3				
	Cont test	2-3-8-9				
6CL8	t	2	8	4	14	3
	t	2	8	4	14	8
●6CM3	4	8	4	14	9	6-7-9
	Ignore glow on	2				2-7
	Cont test	2-7				
6CM6	2	8	4	14	7	1-3-6-9
	Ignore glow on	3				
	Cont test	3-6				
6CM7	t	2	8	4	16	3
	t	3	8	4	18	9
	Cont test	2-3				6-7
6CM8	t	2	8	4	16	8
	pe	2	8	4	14	3
	pe	3	7	2	14	8
6CN6	t	2	5	9	18	7-8
	d	1	5	9	8	2
6CN7	d	1	5	9	8	1
	Cont test	4-5				
6CQ4	1	8	7	8	3	5
6CQ6	3	8	3	18	2	1-5-6-7
6CQ8	t	2	8	4	14	8-1-9
	pe	2	8	4	14	7-2-3-6
6CR6	d	1	8	3	16	1
	pe	2	8	3	16	2
6CR8	t	2	8	4	16	5-6-7
	pe	2	8	4	14	1-9
6CS6	to	2	8	3	14	3
6CS7	t	3	8	4	18	2-6-7
	t	3	8	4	22	8
6CT3	4	8	4	14	9	2-6
	Cont test	2-6				
	Ignore glow on	2				
6CU5	3	8	3	16	1	2-5-6-7
	Ignore glow on	2				
	Cont test	2-5				

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
6CU6	3	8	2	16	8	4-5-10	6DQ5	3	8	2	14	3-6	*		
6CU8	pe	3	8	4	16	6		*1-4-5-8-10 - Ignore glow on 1-4							
	t	2	8	4	14	1		Cont test 1-3-4-5-6-8							
6CV7	May	show short on 1													
	t	2	8	1	16	7	2-3	6DQ6	3	8	2	16	8	4-5-10	
	d	1	8	1	12		5	6DR4	2	8	4	18	7	1-5-6	
	d	1	8	1	12		6	6DR7	Ignore glow on 1						
6CW4	1	8	10	10	8	2-4	t	2	8	4	18	8	6-7		
6CW5	2	8	4	14	3	*	t	2	8	4	14	9	1-2-3		
	<b>*1-2-6-7-8-9</b>						Ignore glow on 2 - Cont test 2-3								
	May show short on 1-2-6-7-8-9						6DR8	pe	2	8	4	14	3	1-2-6	
	Ignore glow on 1-6-7						d	1	8	4	12		8		
6CW7	t	2	8	4	14	7-8		6DS4	1	8	10	8	8	2-4	
	t	2	8	4	14	1	6-9	6DS5	2	8	3	16	2	1-5-6-7	
	Cont test 7-8						Ignore glow on 1 - Cont test 1-7								
6CX8	t	2	8	4	14	1	2-3	6DS8	h	2	8	4	14	3	1-2-6-7
	pe	2	8	4	14	6	7-8-9	t	2	8	4	14		8-9	
6CY5	2	8	3	14	2-7	1-5-6	6DT3	4	8	12	14	7	4-10		
	Cont test 2-7						Cont test 4-10								
6CY7	t	2	8	4	18	8	6-7	6DT4	d	4	8	7	14	3	1-5
	t	2	8	4	14	9	1-2-3	Ignore glow on 1-5							
	Ignore glow on 2						6DT5	2	8	4	16	7	1-3-6-9		
6CZ5	Cont test 2-3						Ignore glow on 3 - Cont test 3-6								
	3	8	4	20	7	1-3-6-9	6DT6	2	8	3	14	2	1-5-6-7		
	Ignore glow on 3						6DT8	t	2	8	4	14	8	6-7	
	Cont test 3-6						t	2	8	4	14	3	1-2		
6D10	t	2	8	12	14	3	2-11	6DV4	1	8	10	8	7	1-2-4-6	
	t	2	8	12	14	6	5-7	●6DW4	Ignore glow on 1-4						
	t	2	8	12	14	4	9-10	d	4	8	4	14	9	2-7	
6DA4	3	8	7	16	3		Ignore glow on 2 - Cont test 2-7								
6DB5	3	8	4	18	2-7	1-3-6-9	6DW5	2	8	4	14	7	1-3-6-9		
	Ignore glow on 3						Ignore glow on 3 - Cont test 3-6								
	Cont test 2-3-6-7						6DX8	t	2	8	4	14	3	1-2	
6DB6	2	8	3	14	2	1-5-6-7	6DY7	pe	2	8	4	14	7	6-8-9	
6DC6	2	8	3	14	2	1-5-6	pe	2	8	2	16	8	5-6		
6DC8	pe	2	8	4	14	3	1-2-6	pe	2	8	2	16		1-3	
	d	1	8	4	12		6DZ4	3	8	4	16	5	1-2-6-7		
	d	1	8	4	12		Cont test 1-7 & 2-6								
6DE4	4	8	7	14	3	5	6DZ7	pe	3	8	2	16	8	4-5-6	
6DE6	2	8	3	14	2	1-5-6	pe	3	8	2	16		1-3-4		
6DE7	t	3	8	4	20	8	6-7	6DZ8	t	2	8	4	22	8	1-9
	t	3	8	4	14	9	1-2-3	pe	2	8	4	20	2	3-6-7	
	Ignore glow on 2						6E5	t	2	8	1	20	5	2-3	
	Cont test 2-3						e	4	8	1	0		2-4		
6DG6	3	8	2	18	8	3-4-5	See instructions for eye test								
6DJ8	t	2	8	4	14	8	6-7	6EA4	2	8	12	34	*	6-10	
	t	2	8	4	14	3	1-2	*2-5-9-11 - Cont test 2-5-9-11							
6DK6	2	8	3	14	2	1-5-6-7	6EA5	2	8	3	14	2-7	1-5-6		
●6DL3	2	8	4	18	10	2-7	Cont test 2-7								
	Must show short on 2-7						6EA7	t	3	8	7	14	6	4-5	
6DL5	2	7	3	14	2	1-5-6-7	t	4	8	7	14	3	1-2		
	Ignore glow on 1						6EA8	pe	2	8	4	14	7	2-3-6	
6DM4	4	8	8	14	3	5	6EB5	t	2	8	4	14	8	1-9	
●6DN3	2	8	5	16	9	2-7	d	1	8	3	10	1	7		
	Ignore glow on 2-7						d	1	8	3	10	5	2		
6DN6	2	8	2	14	3	5-8-10	6EB8	t	2	8	4	14	1	2-3	
6DN7	t	2	8	7	16	6	4-5	p	2	8	4	14	6	7-8-9	
	t	2	8	7	16	3	1-2	4	8	4	14	10	2-7-8		
6DQ4	4	8	8	14	3	5	Ignore glow on 2-7								
	Cont test 2-7-8						Cont test 2-7-8								

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TUBE	A	B	C	D	CATH SHORTS	TEST
▲6ED4	2	8	4	26	1	8-10
	Cont test	1-2-3-6-7-9				
6EH4	2	8	1	34	*	6-10
	*2-5-9-11					
	Cont test	2-5-9-11				
6EH5	2	8	3	14	1	2-5-6-7
	Ignore glow on	2 -	Cont test	2-5		
6EH7	2	8	4	17	1-3	2-7-8-9
	Must show short on	1-3				
6EH8	pe	3	8	4	14	7-8-9
	t	3	8	4	14	2-3
	Cont test	1-6				
6EJ4	2	8	1	30	5	6-10
	Cont test	2-9-11				
6EJ7	2	8	5	14	1-3	2-7-8-9
	Cont test	1-3				
6EL4	1	8	7	18	*	5-10
	*1-3-4-6-8					
	Must show short on	1-3-4				
	May show short on	1-3-4-6-8				
6EM5	3	8	4	16	7	1-3-6-9
	Ignore glow on	3 -	Cont test	3-6		
6EM7	t	2	8	7	16	4-5
	t	2	8	7	14	1-2
6EN4	2	8	7	30	*	5-6-10
	*Cathode short test - throw					
	1-3-4-8 together					
	Grid short test - throw	5-6				
	together					
6EQ7	d	1	8	4	20	3
	pe	2	8	4	14	1-2-6-7
6ER5	2	8	3	14	1-7	2-5-6
	Cont test	1-7				
6ES5	2	8	3	14	1-7	2-5
	Cont test	1-7				
6ES6	2	8	3	14	2	1-5-6
6ES8	t	2	8	4	14	6-7
	t	2	8	4	14	1-2
6ET6	2	7	3	14	2	1-5-6
6ET7	pe	2	8	4	14	7-8-9
	d	1	8	4	18	1
	d	1	8	4	18	2
6EU7	t	2	8	2	18	4
	t	2	8	2	18	9
6EU8	pe	2	8	4	14	8
	t	2	8	4	14	2-3
6EV5	1	8	3	8	2-7	1-5-6
	Cont test	2-7				
6EV7	t	2	8	4	14	8
	t	2	8	4	14	1-2
6EW6	2	8	3	12	2	1-5-6
6EW7	t	2	8	5	14	9
	Cont test	2-3				
6EX6	4	8	7	14	3	5-8-10
6EY6	2	8	2	14	8	3-4-5
6EZ5	3	8	2	14	8	3-4-5
6EZ8	t	2	8	4	18	8-9
	t	2	8	4	18	6-7
	t	2	8	4	14	1
6F6	3	8	2	24	8	2-3
	Cont test	2-3				
	3-4-5					

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TUBE	A	B	C	D	CATH SHORTS	TEST
6FD6	pe	3	8	3	16	7
6FD7	t	3	8	4	20	8
	t	2	8	4	14	9
	Ignore glow on	2 -	Cont test	2-3		
6FE5	2	8	2	12	8	3-4-5
6FG7	t	2	8	4	14	3-8
	pe	3	8	4	14	3-8
	Cont test	3-8				
6FH5	2	8	3	14	1-7	2-5
	Cont test	1-7				
6FJ7	t	2	8	12	16	9
	t	2	8	12	14	7
6FM7	t	3	8	12	14	7
	t	2	8	12	18	9
	Cont test	3-8				
6FM8	t	3	8	4	20	7
	d	1	8	4	8	3
	d	1	8	4	8	1
6FQ5	2	8	3	12	1-7	2-5
	Cont test	1-7				
6FQ7	t	2	8	5	18	3
	t	2	8	5	18	8
6FR7	t	2	8	4	12	8
	t	2	8	4	12	9
	Ignore glow on	2				
6FS5	2	8	3	14	2-7	1-5-6
	Cont test	2-7				
6FV6	2	8	3	14	7	1-5-6
6FV8	t	2	8	4	14	3
	pe	2	8	4	14	8
6FW5	2	8	2	12	3	1-5-8
6FW8	t	2	8	4	14	8
	t	2	8	4	14	3
6FY5	2	8	3	12	1-7	2-5
	Cont test	1-7				
6FY7	t	3	8	12	14	7
	t	2	8	12	18	9
6FY8	t	2	8	4	16	8
	pe	2	8	4	14	2
6G5	t	2	8	1	20	5
	e	4	8	1	0	2-4
	See instructions for eye test					
6G11	pe	2	8	1	14	2
	pe	2	8	1	14	9
6GA7	d	4	8	12	14	8
	p	3	8	12	14	5
6G-B3	3	8	7	16	8	2-3-4-7
▲6GB5	3	8	5	14	3-8	*
	*1-2-6-7-10 - Ignore glow on 1-6					
	Cont test 3-8, 1-2 & 6-7					
6G-B6	3	8	7	16	8	4-5-10
6G-B7	3	8	2	16	8	4-5-10
6GC5	3	8	5	16	7	*
	*1-3-6-8-9					
	Cont test 1-8 & 3-6					
6GC6	2	8	2	14	3	4-5-8-9
	Ignore glow on 4 - Cont test 4-8					
6GE5	3	8	1	16	4-10	*
	*2-3-7-11 - Ignore glow on 3					
6GE8	t	2	8	4	10	2
	pe	2	8	4	12	7
	Cont test	1-8-9				
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TUBE	A	B	C	D	CATH		TEST
					SHORTS	TEST	
6GF5	3	8	12	14	4-10	*	
	*2-3-7-11 - Cont test				4-10 & 3-11		
● 6GF7	t	1	8	5	8	1	8-9
	t	3	8	5	14	3	2-6
6GH7	2	8	4	12	1-3	2-7-8-9	
6GH8	t	3	8	4	14	8	1-9
	pe	3	8	4	14	7	2-3-6
● 6GJ5	3	8	5	16	3	*	
	*1-2-6-7-10 - Cont test				1-7 & 2-6		
6GJ7	t	2	8	4	14	1-3	8-9
	p	3	8	4	14	1-3	2-6-7
6GK5	2	8	3	14	1-7	2-5	
	Cont test				1-7		
6GK6	2	8	4	12	1	2-3-7-9	
	Ignore glow on				3-9		
6G-K17	2	8	7	14	3	5	
6GL7	t	2	8	8	14	3	1-2
	t	3	8	8	20	6	4-5
6GM6	2	8	3	12	2	1-5-6-7	
6GN8	t	2	8	4	14	1	2-3
	pe	2	8	4	12	6	7-8-9
6GQ7	d	2	8	4	14	1	2
	d	2	8	4	14	7	6
	d	2	8	4	14	9	8
6GS7	t	2	8	4	18	38	1-2
	pe	2	8	4	16		6-7-9
● 6GT5	Cont test				3-8		
	4	8	5	14	3	*	
	*1-2-6-7-9 - Cont test				1-7 & 2-6		
6GU5	2	8	4	14	2-7	1-5-6	
	Cont test				2-7		
6GU7	t	2	8	5	16	3	1-2
	t	2	8	5	16	8	6-7
6GV5	2	8	12	14	4-10	*	
	*3-5-7-9-11						
6GV8	Cont test				4-10 & 3-7-11 & 5-9		
	t	2	8	4	14	3	1-9
	pe	3	8	4	14	8	2-6-7
6GW5	t	2	8	3	16	5	1-2-6
	Ignore glow on				2		
6GW6	3	8	7	16	8	4-5-10	
6GW8	t	2	8	4	18	2	1-9
	pe	2	8	4	18	7	3-6-8
6GX6	1	8	4	8	2	1-5-6-7	
6GX7	t	2	8	4	16	1-3	8-9
	pe	3	8	4	14		2-6-7
	Ignore glow on				1-3		
6GY5	2	8	12	14	4-10	*	
	*3-5-7-9-11						
	Cont test				3-7-11 & 5-9 & 4-10		
6GY6	1	8	4	8	2	1-5-6-7	
6GY8	t	1	8	5	8	1-2	
	t	1	8	5	8	8	3-9
	t	4	8	5	48	7	6
6GZ5	pe	3	8	4	14	1	2-5-6-7
	Ignore glow on				2		
6H6	d	1	8	2	10	8	3
	d	1	8	2	10	4	5
6HA5	3	8	4	14	2-7	1-5	
	Cont test				2-7		
6HA6	pe	3	8	4	14	1	*
	*2-3-6-7-8-9						
	Cont test				6-8, 3-9		
6HB5	3	8	1	14	4-10	*	
	*2-3-7-11 - Ignore glow on				3		
	Must show short on				4-10		
6HB6	4	8	5	12	1	*	
	*2-3-6-7-8-9						
	Cont test				3-9 & 6-8		
6HB7	t	2	8	4	14	1-3	8-9
	pe	3	8	4	14	1-3	2-6-7
	Ignore glow on				1		
6HD5	pe	3	8	1	14	4-10	*
	*3-5-7-9-11 - Ignore glow on				4-9-11		
6HD7	t	2	8	4	18	1-3	8-9
	pe	3	8	4	16		2-6-7
	Cont test				1-3		
6HE5	3	8	12	16	4-11	*	
	*2-3-6-9-10						
	Cont test				2-9 & 3-10 & 4-11		
6HE7	pe	3	5	10	14	8	5-9-11
	d	4	5	10	14	4	2
6HF5	2	8	12	14	4-10	*	
	*3-5-6-8-9-11						
	Cont test				4-10 & 5-9 & 3-6-8-11		
6HF8	t	2	8	5	16	1	2-3
	pe	3	8	5	14	6	7-8-9
6HG5	pe	3	8	4	18	2	1-5-6-7
	Ignore glow on				1-7		
6HG8	t	2	8	4	14	1-3	6-7
	pe	2	8	4	12	1-3	2-8-9
	Cont test				1-3		
6HJ5	pe	3	8	12	14	2	*
	*3-4-5-7-9-10-11						
	Ignore glow on				3-4-5		
6HJ7	t	2	8	4	16	1-3	8-9
	pe	2	8	4	16		2-6-7
	Cont test				1-3		
6HJ8	d	1	8	4	8	7	8
	pe	2	8	4	14	1	2-3-6-9
6HK5	2	8	4	14	2-7	1-5	
	Cont test				2-7		
6HL5	2	8	4	18	3	1-2-7-9	
	Ignore glow on				1 - Cont test 1-2		
6HL7	2	8	6	16	1	*	
	*2-3-7-8-9 - Ignore glow on				3		
	Cont test				3-4-5-9		
6HL8	t	3	8	5	16	8	1-9
	pe	3	8	5	14	7	2-3-6
6HM5	3	8	4	14	2-7	1-5	
	Cont test				2-7		
6HM6	pe	3	8	4	14	1-3	2-7-8-9
	Ignore glow on				1		
6HQ5	t	2	8	3	14	2-7	1-5
	Ignore glow on				2-7		
6HR5	3	8	3	20	2	1-5-6-7	
	Ignore glow on				1 - Cont test 1-7		
6HR6	2	8	4	14	7	1-2-5-6	
	2	8	1	16	4	2-7-11	
6HS5	Ignore glow on				2-7		
	Cont test				2-11 & 3-10		

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TUBE	A	B	C	D	CATH SHORTS	TEST
6HS6	2	8	4	14	7	1-2-5-6
6HS8	pe	2	8	4	14	1 2-7-8-9
	pe	2	8	4	14	2-3-6-7
6HT5	2	8	1	24	5	6-10
	Cont test	2-4-7-9-11				
6HT6	pe	3	8	4	14	1-3 2-7-8-9
	Ignore glow on	1				
6HV5	2	8	1	20	4	*
	*2-3-7-10-11					
	Must show short on	2-3-7-10-11				
6HW8	pe	2	8	4	18	7 2-3-6
	pe	2	8	4	18	3-6-8
6HZ5	2	8	1	18	4	*
	*2-3-7-10-11					
	Must show short on	2-11 & 3-10				
6HZ6	1	8	4	8	2	1-5-6-7
6HZ8	t	2	8	4	14	1 2-3
	pe	2	8	4	12	6 7-8-9
6J5	2	8	2	20	8	3-5
6J6	t	1	8	3	8	7 2-5
	t	1	8	3	8	1-6
6J7	2	8	2	16	8	3-4-5-10
6J9	t	2	8	5	16	3 1-2
	t	2	8	5	16	10 6-9
	t	2	8	5	16	10 7-8
6J10	pe	2	8	12	14	3 2-9-11
	pe	4	8	12	40	8 4-5-6-7
6J11	pe	2	8	1	12	6 2-3-4-5
	pe	2	8	1	12	8 *
	*7-9-10-11					
6JA8	t	2	8	4	18	1 2-3
	pe	2	8	4	18	6 7-8-9
6JB5	3	8	12	18	4-11	*
	*2-3-6-9-10					
	Cont test	2-3-4-9-10-11				
●6JB6	pe	3	8	4	14	3 *
	*1-2-6-7-8-10					
	Ignore glow on	1-7, 2-6				
6JC5	2	8	12	18	4-11	*
	*2-3-6-9-10					
	Cont test	2-9 & 3-10 & 4-11				
6JC6	2	8	5	14	1-3	2-7-8-9
	Cont test	1-3				
6JC8	pe	2	8	5	16	1-7 2-3-6
	t	2	8	5	16	8-9
	Cont test	1-7				
6JD5	2	8	1	18	4	*
	*2-3-7-10-11					
	Must show short on	2-11 & 3-10				
6JD6	3	8	5	14	1-3	2-7-8-9
	Cont test	1-3				
●6JE6	3	8	5	14	3	*
	*1-2-6-7-8-10					
	Cont test	1-7 & 2-6				
6JE8	t	2	8	4	14	1 2-3
	pe	2	8	4	12	6 7-8-9
6JF6	2	8	4	18	3	*
	*1-2-6-7-10 - Ignore glow on	1-2-6				
	Cont test	1-2-6-7				
6JG5	2	8	4	18	6	7-8-9
●6JG6	4	8	4	14	3	1-2-7-9
	Ignore glow on	1-2 - Cont test	1-7			

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TUBE	A	B	C	D	CATH SHORTS	TEST
6JH5	2	8	1	16	4	*
	*2-3-7-8-10-11					
	Cont test	2-11 & 3-10 & 7-8				
	Grid short test - throw	2-11				
	together					
	Screen short test - throw	3-10				
	together					
	Plate short test - throw	7-8				
	together					
6JH6	pe	3	8	3	14	2 1-5-6-7
6JH8		3	8	5	16	7
	*1-2-3-6-8-9					
6JK5	2	8	1	18	4	*
	*2-3-7-8-10-11					
	Cont test	2-11 & 3-10 & 7-8				
	Grid short test - throw	2-11				
	together					
	Screen short test - throw	3-10				
	together					
	Plate short test - throw	7-8				
	together					
6JK6	2	8	4	14	2	1-5-6-7
6JK8	t	2	8	5	14	3 1-2
	t	1	8	5	8	8 6-7
6JL6	3	8	4	14	2	1-5-6-7
6JM6	pe	3	8	1	14	2 3-4-5-10
	Ignore glow on	4				
6JN6	pe	3	8	1	14	2 *
	*3-4-7-10-11					
	Ignore glow on	4-10				
6JN8	t	2	8	5	14	3 1-2
	pe	2	8	5	14	8 6-7-9
6JQ6	pe	2	8	4	18	9 1-2-3-7-8
	d	2	8	4	26	6
	Ignore glow on	7 - May glow on 2				
	Cont test	7-8				
●6JR6	4	8	5	14	3	1-2-6-7-9
	Cont test	1-7 - Ignore glow on 1				
6JS6	pe	4	8	12	14	2 *
	*3-4-5-9-10-11					
	Cont test	3-11, 4-10, 5-9				
	Do not attach grid lead to top tube terminal					
	Ignore glow on	3-4-5-9-10				
●6JT6	pe	3	8	4	16	3 *
	*1-2-6-7-9 - Ignore glow on 1-7					
6JT8	t	2	8	5	16	1 2-3
	pe	3	8	5	14	6 7-8-9
●6JU6	2	8	4	16	3	*
	*1-2-6-7-10					
	Ignore glow on	1-2-6				
	Cont test	1-2-6-7				
6JU8	d	3	8	5	14	1-2-7-8
	d	3	8	5	14	1-7
6JV8	t	2	8	5	16	1 2-3
	pe	2	8	5	14	6 7-8-9
6JX8	t	2	8	4	18	3 8-9
	h	2	8	4	18	2-6-7
6JY8	t	2	8	4	19	1 2-3
	pe	2	8	4	19	6 7-8-9

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TUBE	A	B	C	D	CATH SHORTS		TEST	TUBE	A	B	C	D	CATH SHORTS		TEST	
6JZ6	2	8	12	16	2	3-4-5-10		6KZ8	pe	3	8	4	14	3	2-6-7	
	Ignore glow on 4-5							t	2	8	4	14	8		1-9	
6JZ8	Cont test 4-10								3	8	2	18	8		3-4-5	
	t	2	8	12	18	11	2-10	6LB6	3	8	1	12	2		3-5-9-11	
	pe	3	8	12	14	9	4-6-7-8	Ignore glow on 3-5-9				3-5-9				
	Cont test 6-7							Cont test 3-4-5-9-10-11								
6K6	3	8	2	20	8	3-4-5		6LB8	t	2	8	4	20	1	2-3	
6K11	t	2	8	12	16	3	2-11		pe	3	8	4	14	6	7-8-9	
	t	2	8	12	16	6	5-7		2	8	7	28	6		5-10	
	t	2	8	12	16	4	9-10	Cont test 1-3-4								
6KA8	t	2	8	5	16	3	1-2	6LC8	t	2	8	4	16	3-7	1-2	
	pe	2	8	5	14		6-7-8-9		pe	3	8	4	14	3-7	6-8-9	
6KD6	3	8	1	12	2	3-5-9-11		6LD6	3	8	4	14	1	2-6-7-8		
	Ignore glow on 3-5-9							Cont test 6-8 & 3-9								
	Cont test 3-4-5-9-10-11							6LE8	pe	2	8	4	18	3	1-8-9	
6KD8	pe	2	8	5	16	7	2-3-6		pe	2	8	4	18		6-8-9	
	t	2	8	5	16	8	1-9	6LF6	2	8	1	24	2	*		
6KE8	pe	2	8	5	14	7	2-3-6	*3-4-10-11				Must show short 3-4-10-11				
	t	2	8	5	16	8	1-9	6LF8	t	2	8	4	16	1	2-3	
6KF8	pe	3	8	4	14	1	2-3-6-7		pe	3	8	4	16	6	7-8-9	
	pe	3	8	4	14	1	2-7-8-9		2	8	1	20	4-10	*		
▲6KG6	2	8	4	16	9	*		*3-5-9-11				Must show short on 3-4-5-9-10-11				
	*1-3-6-8-10							6LH6	2	8	7	26	6	5-10		
	Ignore glow on 1-3-6							Cont test 1-3-4								
6KL8	pe	2	8	5	16	3	2-6-7	6LJ6	3	8	2	50	6		5-10	
●6KM6	d	2	8	5	16		8	Cont test 1-3-4								
	2	8	4	16	3	*		6LJ8	t	2	8	4	14	3-8	1-2	
	*1-2-6-7-10								p	3	8	4	14	3-8	6-7-9	
	Ignore glow on 1-2-6							Cont test 3-8								
	Cont test 1-2-6-7							6LM8	t	2	8	4	14	8	1-9	
6KM8	te	2	8	5	16	6	1-7-8		pe	3	8	4	14	7	2-3-6	
	te	2	8	5	16		7-8-9		t	2	8	4	16	8	1-9	
	te	2	8	5	16		2-7-8		pe	2	8	4	16	7	2-3-6	
	d	1	8	5	18		3		●6LQ6	3	8	5	14	3	*	
6KN6	4	8	12	14	2	*		*1-2-6-7-8-10				Cont test 1-7 & 2-6				
	*3-4-5-9-10-11							t	2	8	4	14	1	2-3		
	Ignore glow on 3-4-5-9-10							pe	3	8	4	14	6	7-8-9		
	Cont test 3-4-5-9-10-11							4	8	12	14	2	*			
6KN8	t	2	8	4	16	8	6-7	*3-4-5-9-10-11				Cont test 3-11 & 4-10 & 5-9				
	t	2	8	4	16	3	1-2	●6LR8	t	2	8	4	16	1	8-9	
6KR8	t	2	8	4	14	1	2-3		pe	2	8	4	16	3	2-6-7	
	pe	3	8	4	14	6	7-8-9		4	8	12	14	2	*		
6KS6	4	8	3	38	1	2-5-6-7		Cont test 3-11 & 4-10 & 5-9								
6KS8	t	2	8	4	18	1	2-3	6LT8	d	1	8	4	10	7	8	
	pe	2	8	4	16	6	7-8-9		d	1	8	4	10		6	
6KT6	2	8	4	16	1-3	2-7-8		pe	2	8	4	16	1-7	2-3-9		
6KT8	t	2	8	4	14	1	2-3		2	8	3	18	2	1-5-6-7		
	pe	3	8	4	14	6	7-8-9		6LU6	t	2	8	12	18	11	2-10
6KU8	d	1	8	4	12	1	3			pe	4	8	12	14	9	4-6-7-8
	d	1	8	4	12	2			6LU8	2	8	1	24	2	*	
●6KV6	pe	2	8	4	16	6	7-8-9	Ignore glow on 6 - Cont test 6-7								
	2	8	4	16	3	1-2-7-9		*3-4-10-11				Must show short on 3-4-10-11				
	Ignore glow on 1-2 - Cont test 1-7								6LV6	2	8	1	24	2	*	
6KV8	t	2	8	4	14	1	2-3									
6KY6	pe	2	8	4	16	1	2-7-8									
	Cont test 3-9															
●6KY8	t	2	8	4	18	1	8-9									
	pe	3	8	4	14	3	2-6-7									

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TUBE	CATH SHORTS					TEST	TUBE	CATH SHORTS					TEST		
	A	B	C	D				A	B	C	D				
6LX6	2	8	12	16	2	*	6R3	d	4	8	4	14	10	2-9	
	*3-4-5-9-10-11							Ignore glow on 2							
	Do not attach grid lead to top tube terminal						6R4		2	8	4	16	3	1-8	
	Cont test 3-11 & 4-10 & 5-9						6R8	t	3	8	4	24	7	8-9	
	Grid short test - throw 5-9 together							d	1	8	4	8	3	2	
	Screen short test - throw 3-11 together							d	1	8	4	8	1	1	
	Beam plate short test - throw 4-10 together							d	1	8	4	8	6	6	
6LY8	t	2	8	4	18	1	6R-A6		3	8	2	16	8	4-5-10	
	pe	2	8	4	16	6	6R-A9		2	8	4	18	1	2-7-9	
6M11	pe	1	8	12	8	10		Cont test 2-7							
	t	2	8	12	14	4	6R-B11		2	8	4	18	7	1-3-6-9	
	t	2	8	12	14	9		Cont test 3-6							
6MB8	t	2	8	4	16	3	6R-HH2	t	2	8	4	14	8	6-7	
	pe	2	8	4	16	8	6R-HH8	t	2	8	4	16	8	6-7	
● 6MD8	t	2	8	4	18	7	t	2	8	4	16	3	1-2	1-2	
	t	2	8	4	18		6R-K19	1	8	4	10	10	2-9	2-9	
6ME8	t	2	8	4	18			Ignore glow on 2 - Cont test 2-9							
	3	8	4	16	7		6R-P15	2	8	4	18	3	1-2-7-9	1-2-7-9	
	*1-2-3-6-8-9							Ignore glow on 1 - Cont test 1-2							
6MF8	t	2	8	1	16	11	6R-P22	2	8	4	16	1	*		
	pe	2	8	1	16	9		*2-3-6-8-9							
	Ignore glow on 6 - Cont test 6-7							Ignore glow on 2-3-6-8							
6MG8	t	2	8	4	18	8	6S4		2	8	4	14	2	3-6-9	
	pe	2	8	4	18	7		Cont test - 2-3-8-9							
6M-HH3	t	1	8	3	8	7		2	8	4	14	2			
	t	1	8	3	8			Ignore glow on 3 - Cont test 3-6							
6MJ8	t	2	8	1	18	3	6SA7	2	8	2	14	6	3-4-5-8		
	t	2	8	1	18		6SB7	2	8	2	14	6	3-4-5-8		
6MK8	t	2	8	1	18		6SL7	t	3	8	7	24	3	1-2	
	pe	2	8	4	16	1		t	3	8	7	24	6	4-5	
6ML4	pe	2	8	4	16			t	2	8	7	16	3	1-2	
	t	2	8	3	14	5	6SN7	t	2	8	7	16	6	4-5	
	Ignore glow on 1-2							t	1	8	7	8	3	2-6	
	Cont test 1-2-6-7						6SQ7	t	1	8	7	18		5	
6MN8	t	2	8	1	18	3		d	1	8	7	18		4	
	t	2	8	1	18		6T8	t	1	8	4	8	7	8-9	
	t	2	8	1	18			d	1	8	4	8		6	
	t	2	8	1	18			d	1	8	4	8	3	2	
6M-P17	3	8	3	20	2	1-5-6-7	6T9	t	2	8	12	16	5	2-4	
6M-P18	3	8	3	18	2	1-5-6-7	6T10	pe	3	8	12	14	9	8-10-11	
	Ignore glow on 1 - Cont test 1-7						pe	2	8	12	16	2	3-5-6-7		
6M-P20	2	8	3	18	2	1-5-6	6U3	pe	3	8	12	14	9	8-10-11	
6MQ8	t	2	8	4	21	8	6U5	t	2	8	1	22	5	2-3	
	pe	2	8	4	23	7		e	4	8	1	0		2-4	
6MU8	t	2	8	5	19	8		See instructions for eye test							
	p	2	8	5	19	7	6U8	t	2	8	4	14	8	1-9	
6MV8	t	2	8	4	18	1	6U9	pe	2	8	4	14	7	2-3-6	
	pe	2	8	4	18	6		t	2	8	5	18	1	9-10	
6MY8	t	2	8	12	18	11	6U10	pe	2	8	5	16	2	3-7-8	
	pe	4	8	12	14	9		t	2	8	12	18	3	2-11	
	Ignore glow on 6 - Cont test 6-7						t	2	8	12	18	4	9-10		
6N3	3	8	4	16	3	9		t	2	8	12	18	6	5-7	
6Q5	3	8	2	20	8	3-5	6V3	4	8	4	14	10	2-7-9		
6Q11	t	2	8	1	16	3		Ignore glow on 2-7							
	t	2	8	1	16	6	6V6		3	8	2	20	8	3-4-5	
						5-7		t	2	8	5	16	9	8-10	
						9-10	6V9	h	2	8	5	18	1	3-4-7	

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST							
6W4	4	7	7	14	3	5	8BA8	t	2	9	4	14	1	2-3						
Allow sufficient heater warm-up time																				
6W6	3	8	2	16	8	3-4-5	8BA11	pe	2	9	1	16	6	7-8-9						
6X4	p	4	8	3	14	7		pe	2	9	1	16	8	2-3-4-5						
6X5	p	4	8	2	14	8		t	2	9	1	18	10	3-4-6-7						
	p	4	8	2	14	5		8BH8	t	2	9	4	14	1	9-11					
6X8	t	2	8	4	14	6			pe	2	9	4	14	6	2-3					
	pe	2	8	4	14	1-7-8-9		8BM11	pe	2	9	12	16	10	7-8-9					
6X9	t	2	8	5	16	1			pe	2	9	12	16	5	7-9-11					
	pe	2	8	5	16	9-10		8BN8	t	2	9	4	16	9	2-3-6					
6Y9	pe	2	8	5	16	2			d	1	9	4	8	3	7-8					
	pe	2	8	5	16	3-7-8		8BN11	d	1	9	4	8	2	6					
6Y10	pe	2	8	5	16	7			pe	2	9	12	16	8	1					
	pe	2	8	5	16	8-9-10		8BQ5	pe	2	9	12	16	2	7-9-11					
6Z4	pe	2	8	12	16	9			pe	2	9	4	18	3	3-4-5					
	pe	2	8	12	16	8-10-11		8BQ5	Ignore	glow	on	1	-	Cont test 1-2						
6Z10	pe	2	8	12	14	3		8BQ7	t	2	9	4	14	8	6-7					
	pe	4	8	12	40	8			t	2	9	4	14	3	1-2					
7AU7	t	3	5	9	20	8		8BQ11	pe	2	9	12	16	11	8-9-10					
	t	3	5	9	20	6-7			pe	2	9	12	16	6	2-3-5					
	Cont test 4-5							8BU11	t	2	9	12	16	2	3-4					
7EY6	t	2	9	2	14	8			t	2	9	12	16	5	6-7					
7GS7	t	2	9	4	18	38			pe	2	9	12	16	11	6-7					
	pe	2	9	4	16	1-2		8CB11	pe	2	9	12	14	6	8-9-10					
	Cont test 3-8								pe	2	9	12	14	11	2-3-4-5					
7HG8	t	2	9	4	14	1-3		8CG7	t	3	9	4	24	8	1-2					
	pe	2	9	4	12	1-3			t	3	9	4	24	3	6-7-9					
	Cont test 1-3							8CL8	t	2	9	4	14	3	1-2					
7KY6	t	2	9	4	16	1			te	2	9	4	14	8	6-7-9					
	Cont test 3-9							8CM7	t	2	9	4	14	9	6-7					
7KZ6	t	2	9	4	16	1			t	2	9	4	14	9	1-8					
	Cont test 3-9							8CN7	t	2	6	9	18	6	7-8					
7M-P18	t	3	8	3	18	2			d	1	6	9	8	3	2					
	Ignore glow on 1 - Cont test 1-7								d	1	6	9	8		1					
8AC9	pe	2	9	12	16	8		8CS7	Cont	test	4-5									
	d	1	9	12	10	9-10-11		t	3	9	4	18	9	1-3						
	Cont test 3							t	3	9	4	22	8	6-7						
8AC10	t	2	8	12	16	4			2	9	4	12	3	*						
	t	2	8	12	16	9-10		*1-2-6-7-8-9												
	t	2	8	12	16	5-7		Ignore	glow	on	1-6									
	t	2	8	12	16	2-11		May	show	short	on	1-2-6-7-8-9								
8AL9	t	2	9	1	20	6		8CX8	t	2	9	4	16	1	2-3					
	pe	2	9	1	20	5-7		pe	2	9	4	14	6	7-8-9						
	Cont test 2-10-11							8CY5	2	9	3	14	2-7	1-5-6						
8AR11	pe	2	9	12	14	6		Cont test 2-7												
	pe	2	9	12	14	2-3-4-5		t	2	9	4	18	8	6-7						
8AU8	t	2	9	4	14	1		t	3	9	4	40	9	1-2-3						
	pe	2	9	4	14	2-3		Ignore	glow	on	2	-	Cont	test	2-3					
8AV11	t	2	9	1	16	3		8DX8	t	2	9	4	14	3	1-2					
	t	2	9	1	16	5-7		pe	2	9	4	14	7	6-8-9						
	t	2	9	1	16	9-10		8EB8	t	2	9	4	14	1	2-3					
8AW8	t	2	9	4	16	1		pe	2	9	4	14	6	7-8-9						
	pe	2	9	4	14	7-8-9		8EM5	3	9	4	16	7	1-3-6-9						
8B8	t	2	9	4	18	8		Ignore glow on 3 - Cont test 3-6												
	pe	2	9	4	16	1-9		8ET7	p	2	9	4	14	6	7-8-9					
	Cont test 3-6-7							d	1	9	4	18	1	3						
8B10	t	2	9	12	16	2		d	1	9	4	20		2						
	t	2	9	12	16	5-6		8FQ7	t	2	9	5	18	3	1-2					
	d	1	9	12	10	9			t	2	9	5	18	8	6-7					

TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST
8GJ7	t 2	9	4	14	1-3	8-9	8X9	t 2	9	5	16	1	9-10
	pe 3	9	4	14		2-6-7		pe 2	9	5	16	2	3-7-8
	Cont test	1-3						t 2	9	4	14	8	1-9
8GK6	pe 2	9	4	12	1	2-3-7-9		pe 2	9	4	14	7	2-3-6
	Ignore glow	on	3					t 2	8	1	18	4	2-3
8GM6	2	9	3	12	2	1-5-6		pe 2	8	1	16	7	5-6-8-11
8GN8	t 2	9	4	14	1	2-3		Ignore glow	on	5	-	Cont test	5-6
	pe 2	9	4	12	6	7-8-9		t 2	9	1	20	4	9-10
8GU7	t 2	9	5	16	3	1-2		t 2	9	1	20	6	5-7
	t 2	9	5	16	8	6-7		t 2	9	4	14	8	2-11
8GX7	t 2	9	4	16	1	8-9		t 2	9	4	14	3	6-7
	pe 3	9	4	14	3	2-6-7		t 3	7	9	20	3	1-2
	Ignore glow	on	1-3					t 3	7	9	20	8	1-2
8HA6	3	9	4	14	1	*		Cont test	4-5				6-7
	*2-3-6-7-8-9							pe 2	10	12	16	10	7-9-11
	Cont test	6-8 & 3-9						pe 2	10	12	16	5	2-3-6
8HG8	t 2	9	4	14	1	6-7		t 2	7	9	14	3	1-2
	pe 2	9	4	12	1	2-8-9		d 1	7	9	8	8	7
	Ignore glow	on	1					d 1	7	9	8		6
8JE8	t 2	9	4	14	1	2-3		Cont test	4-5				
	pe 2	9	4	12	6	7-8-9		t 2	10	4	14	3-8	1-2
8JK8	t 2	9	5	14	3	1-2		pe 2	10	4	14		6-7-9
	t 1	9	5	8	8	6-7		Cont test	3-8				
8JT8	t 2	9	5	16	1	2-3		t 2	10	4	14		1-2
	pe 3	9	5	14	6	7-8-9		te 2	10	4	14		6-7-9
8JU8	d 3	9	5	14		1-2-7-8		t 2	10	4	22		1-9
	d 3	9	5	14				pe 2	10	4	20		3-6-7
8JV8	t 2	9	5	16	1	2-3		pe 2	10	4	14		2-3-6
	pe 2	9	5	14	6	7-8-9		t 2	10	4	14		1-9
8K11	t 2	9	12	16	3	2-11		t 2	9	4	26	1	8-10
	t 2	9	12	16	6	5-7		Cont test	1-2-3-6-7-9				
8KA8	t 2	9	12	16	4	9-10		t 3	8	4	14	8	1-9
	pe 2	9	5	16	3	1-2		pe 3	8	4	14	7	2-3-6
8KR8	t 2	9	4	14	1	2-3		t 2	10	4	14	3	1-2
	pe 3	9	4	14	6	7-8-9		pe 3	10	4	14	8	6-7-9
8KS8	t 2	9	5	19	1	2-3		pe 2	10	5	16	1-7	2-3-6
	pe 2	9	5	20	6	7-8-9		t 2	10	5	16		8-9
8KT8	t 2	9	4	14	1	2-3		Cont test	1-7				
	pe 2	9	4	14	6	7-8-9		2	10	4	16	1	2-7-9
8LC8	t 2	9	4	16	3-7	1-2		2	10	4	16	9	*
	pe 3	9	4	14	3-7	6-8-9		*1-3-6-8-10					
8LE8	pe 2	9	4	18	3	1-8-9		Ignore glow	on	1-3-6			
	pe 2	9	4	18		6-8-9		Cont test	1-2-3-6-7-8				
8LS6	2	8	4	18	1	2-7-8							
	Cont test	3-9											
8LT8	d 1	9	4	10	7	8							
	d 1	9	4	10		6							
8LX8	pe 2	9	4	16	1-7	2-3-9							
	t 2	9	4	16	8	1-9							
●8MD8	pe 2	9	4	16	7	2-3-6							
	t 2	9	4	18		3-6							
	t 2	9	4	18		2-8							
	t 2	9	4	18		1-9							
8MU8	t 2	9	5	19	8	1-9							
	pe 2	9	5	19	7	2-3-6							
8R-HP1	t 2	9	4	18	8	1-9							
	pe 2	9	4	16	2	3-6-7							
8U9	t 2	9	5	18	1	9-10							
	pe 2	9	5	16	2	3-7-8							

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
9R-A6	2	10	5	18	1	2-7-9	10HA6	pe	3	10	4	14	1	*	
	Must show short on 2-7							*2-3-6-7-8-9							
	Grid short test - throw 2-7							Cont test 6-8,3-9							
	together						10HF8	t	2	10	5	16	1	2-3	
9R-AL1	t	3	10	4	20	8		pe	3	10	5	14	6	7-8-9	
	t	2	10	4	16	9		2	10	1	18	4-11	*		
	Ignore glow on 2 - Cont test						10JA5	*2-3-6-9-10							
9R-HR2	t	3	10	4	14	8		Cont test 2-9 & 3-10 & 4-11							
	pe	3	10	4	14	7		Cathode short test - throw 4-11							
9U8	t	2	10	4	14	8		together							
	pe	2	10	4	14			Grid short test - throw 2-9							
9V9	t	2	10	5	16	9		together							
	h	2	10	5	18	1		Screen short test - throw 3-10							
9X8	t	2	10	4	14	6		together							
	pe	2	10	4	14			10JA8	t	2	10	4	18	1	2-3
10AF11	t	2	10	12	16	7		pe	2	10	4	18	6	7-8-9	
	t	2	10	12	16	5		10JT8	t	2	10	5	16	1	2-3
	pe	2	10	12	14	9		pe	3	10	5	14	6	7-8-9	
10AL11	pe	3	10	12	14	9		10JY8	t	3	10	5	14	1	2-3
	pe	2	10	12	16	2		pe	3	10	5	14	6	7-8-9	
10BQ5	3	10	4	18	3	1-2-7-9		10KR8	t	2	10	4	14	1	2-3
	Ignore glow on 1 - Cont test							pe	3	10	4	14	6	7-8-9	
10CW5	2	10	4	12	3	*		10KU8	d	1	10	4	12	1	3
	*1-2-6-7-8-9							d	1	10	4	12		2	
	Ignore glow on 1-6-7							pe	2	10	4	16	6	7-8-9	
	May show short on 1-2-6-7-8-9							10LB8	t	2	10	4	20	1	2-3
10DE7	t	3	10	4	22	8		pe	3	10	4	14	6	7-8-9	
	t	3	10	4	16	9		10LD6	3	10	4	14	1	2-6-7-8	
	Ignore glow on 2 - Cont test							Cont test 6-8 & 3-9							
10DR7	t	2	10	4	18	8		10LE8	pe	2	10	4	18	3	1-8-9
	t	2	10	4	14	9		pe	2	10	4	18		6-8-9	
	Ignore glow on 2 - Cont test							10LM8	t	2	10	4	14	8	1-9
10DX8	t	2	10	4	14	3		pe	3	10	4	14		2-3-6	
	pe	2	10	4	14	7		10LW8	t	2	10	4	16	1	2-3
10EB8	t	2	10	4	14	1		pe	2	10	4	16	6	7-8-9	
	pe	2	10	4	14	6		10LY8	t	2	10	4	18	1	2-3
10EG7	t	2	10	7	16	6		pe	2	10	4	16	6	7-8-9	
	t	2	10	7	12	3		10LZ8	t	2	10	4	18	1	2-3
10EM7	t	2	10	7	16	6		pe	2	10	4	18	6	7-8-9	
	t	2	10	7	14	3		10T10	pe	2	10	12	16	2	3-5-6-7
10EW7	s	2	10	4	16	8		pe	3	10	12	14	9	8-10-11	
	s	2	10	4	14	9		10Z10	pe	2	10	12	14	3	2-9-11
	Ignore glow on 2 - Cont test							pe	4	10	12	40	8	4-5-6-7	
10FD7	t	3	10	4	20	8		11AF9	pe	2	10	5	16	7	8-9-10
	t	2	10	4	12	9		pe	2	10	5	16	2	1-3-4	
	Ignore glow on 2 - Cont test							May show short on 2							
10FR7	t	2	10	4	12	8		11AR11	pe	2	10	12	14	6	2-3-4-5
	t	2	10	4	12	9		pe	2	10	12	14	11	7-8-9-10	
	Ignore glow on 2							11BM8	t	2	10	4	14	8	1-9
●10GF7	t	1	10	5	8	1		pe	2	10	4	14		3-6-7	
	t	3	10	5	14	3		11BN11	pe	2	10	12	16	8	7-9-11
10GH8	t	3	10	4	14	8		pe	2	10	12	16	2	3-4-5	
	pe	3	10	4	14	7		11BQ11	pe	2	10	12	16	11	8-9-10
10GK6	pe	2	10	4	12	1		pe	2	10	12	16	6	2-3-5	
	Ignore glow on 3							11BT11	t	2	10	12	18	6	5-7
10GN8	t	2	10	4	14	1		pe	2	10	12	16	4	3-9	
	pe	2	10	4	12	6		pe	2	10	12	16	8	2-10-11	
10GV8	t	2	10	4	14	3									
	pe	3	10	4	14	8									
	6-7-9														

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TUBE	A	B	C	D	CATH SHORTS	TEST		A	B	C	D	CATH SHORTS	TEST			
11CA11	t	1	10	1	10	7	2-3	12AS5	3	11	3	18	1	2-5-6-7		
	t	1	10	1	10	5	4-6		Ignore	glow	on	2-	Cont	test 2-5		
	pe	1	10	1	10	9	8-11	12AT6	t	3	11	3	20	2	1-7	
	May	show	short	on	7				d	1	11	3	16	5		
11CF11	d	2	10	1	18	7	2-11		d	1	11	3	16	6		
	d	2	10	1	20	8	9-10	12AT7	t	2	8	9	14	8	6-7	
	pe	2	10	1	18	6	3-4-5		t	2	8	9	14	3	1-2	
11CY7	t	2	11	4	18	8	6-7		Cont	test	4-5					
	t	2	11	4	14	9	1-2-3	12AU6	3	11	3	16	7	1-2-5-6		
	Ignore	glow	on	2	-	Cont	test 2-3	12AU7	t	3	8	9	20	8	6-7	
11DS5	2	10	3	16	2	1-5-6-7		t	3	8	9	20	3	1-2		
	Ignore	glow	on	1	-	Cont	test 1-7	12AU8	Cont	test	4-5					
11FY7	t	3	10	12	14	7	3-5		t	2	11	4	14	1	2-3	
	t	2	10	12	18	9	10-11		pe	2	11	4	14	6	7-8-9	
11HM7	2	7	6	16	1	2-7-8	12AV7	t	2	8	9	14	8	6-7		
	Cont	test	3-4-5-9					t	2	8	9	14	3	1-2		
11JE8	t	2	11	4	14	1	2-3		Cont	test	4-5					
	pe	2	11	4	12	6	7-8-9	12AX3	3	11	1	16	7	4-10		
11KV8	t	2	11	4	14	1	2-3		Cont	test	4-10					
	pe	3	11	4	14	6	7-8-9	12AX4	4	11	7	14	3	5		
11LQ8	t	2	11	4	14	1	2-3	12AX7	t	1	8	9	10	8	6-7	
	pe	3	11	4	14	6	7-8-9		t	1	8	9	10	3	1-2	
11R3	4	10	4	14	10	2-9		Cont	test	4-5						
	Ignore	glow	on	2			●12AY3	4	11	4	14	9	2-7			
11LT8	d	1	10	4	10	7	8		Cont	test	2-7					
	d	1	10	4	10		6	12AY7	t	1	8	9	10	8	6-7	
	pe	2	10	4	16	1-7	2-3-9		t	1	8	9	10	3	1-2	
11MS8	t	1	11	4	11	3	1-2		Cont	test	4-5					
	pe	1	11	4	11	8	6-7-9	12AZ7	t	3	8	9	16	8	6-7	
11Y9	pe	2	10	5	16	7	8-9-10		t	3	8	9	16	3	1-2	
	pe	2	10	5	16	2	1-3-4		Cont	test	4-5					
12AD6	3	11	3	20	2	1-5-6-7	12B4	2	8	3	14	1	2-7-9			
12AE6	t	3	11	3	28	2	1-7		Ignore	glow	on	2				
	d	1	11	3	18		6	12BA6	2	11	3	14	7	1-2-5-6		
	d	1	11	3	18		5	▲12B-B14	3	11	4	16	3-8	*		
12AE7	t	2	8	9	14	8	6-7		*1-2-6-7-10							
	t	2	8	9	14	3	1-2		Ignore	glow	on	1-6				
	Cont	test	4-5						Cont	test	1-2-3-6-7-8					
12AE10	pe	2	11	12	18	2	3-6-7	12BD6	2	11	3	17	7	1-2-5-6		
	pe	3	11	12	18	9	8-10-11	12BE3	1	8	1	8	7	4-10		
12AF4	2	11	3	14	5	1-2-6-7		Ignore	glow	on	4					
	Ignore	glow	on	1-2			12BE6	2	11	3	14	2	1-5-6-7			
	Cont	test	1-2-6-7				12BF6	t	3	11	3	22	2	1-7		
12AF6	2	11	4	14	7	1-2-5-6		d	1	11	3	18	6			
12AF11	t	2	11	12	16	7	3-4		d	1	11	3	18	5		
	t	2	11	12	16	5	6-8	12BF11	pe	2	11	12	16	2	3-6-7	
	pe	2	11	12	14	9	2-10-11		pe	2	11	12	14	9	8-10-11	
12AG6	2	11	4	14	2	1-5-6-7	12BH7	t	3	8	9	16	8	6-7		
12AJ7	t	2	11	4	20	3	8-9		t	3	8	9	16	3	1-2	
	h	2	11	4	18		1-2-6		Cont	test	4-5					
12AL8	t	3	11	4	30	9	1-8	12BK5	2	11	4	14	6	1-3-7-8		
	te	3	11	4	18	7	2-3-6		Ignore	glow	on	3	-	Cont	test	3-7
12AL11	pe	3	11	12	14	9	8-10-11	12BK6	t	3	11	3	18	2	1-7	
	pe	2	11	12	16	2	3-4-6-7		d	1	11	3	12	6		
12AQ5	3	11	3	18	2	1-5-6-7		d	1	11	3	12	5			
	Ignore	glow	on	1	-	Cont	test	1-7	12BL6	2	11	3	14	7	1-2-5-6	
12AQ6	t	1	11	3	8	2	1-7	12BN6	4	11	3	38	1	2-5-6-7		
	d	1	11	3	18		6	12BQ6	3	11	2	18	8	4-5-10		

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST	
12BR3	3	11	4	26	10	2-9	12DF5	d	1	8	9	10	8	6
	Ignore glow on 2	-	Cont test 2-9				d	1	8	9	10	3	1	
12BR7	t 2	8	9	14	3	1-2	Cont test 4-5							
	d 1	8	9	10	8	7	12DF7	t 3	8	9	20	3	1-2	
	d 1	8	9	10		6	t 3	8	9	20	8	6-7		
●12BS3	Cont test 4-5						Cont test 4-5							
	d 4	11	4	14	9	2-7	12DJ8	t 2	11	4	14	8	6-7	
	Ignore glow on 2						t 2	11	4	14	3	1-2		
12BT3	4	11	12	12		4-10	12DK6	t 2	11	3	14	2	1-5-6-7	
	Cont test 4-10						12DM4	d 4	11	8	12	3	5	
12BT6	t 2	11	3	18	2	1-7	12DM7	t 1	8	9	10	8	6-7	
	d 1	11	3	18			t 1	8	9	10	3	1-2		
	d 1	11	3	18			12DN6	t 2	11	2	14	3	5-8-10	
12BU6	t 3	11	3	22	2	1-7	12DQ4	4	11	8	14	3	5	
	d 1	11	3	12			12DQ5	3	11	2	14	3-6	*	
	d 1	11	3	12			*1-4-5-8-10 - Ignore glow on 1-4							
12BV7	2	8	6	14	1	*	Cont test 1-3-4-5-6-8							
	*2-3-7-8-9 - Ignore glow on 3						12DQ6	3	11	2	16	8	4-5-10	
	Cont test 3-4-5-9						12DQ7	2	8	6	14	1	2-7-8	
12BV11	pe 2	11	1	16	8	7-9-10	Cont test 3-9							
	pe 2	11	1	16	5	3-4-6	12DS7	te 2	11	4	14	8	3-6-7	
12BY7	2	8	6	14	1	2-7-8	d 1	11	4	14		9		
	Cont test 3-4-5-9						d 1	11	4	14		1		
12BZ6	2	11	3	14	2	1-5-6-7	12DT5	2	11	4	18	7	1-3-6-9	
12BZ7	t 2	8	9	14	8	6-7	Ignore glow on 3 - Cont test 3-6							
	t 2	8	9	14	3	1-2	12DT6	2	11	3	14	2	1-5-6-7	
12C5	Cont test 4-5						12DT7	t 2	8	9	18	3	1-2	
	2	11	3	14	1	2-5-6-7	t 2	8	9	18	8	6-7		
	Ignore glow on 2 - Cont test 2-5						12DU7	te 2	11	4	12	2	1-3-6	
12C8	pe 3	11	2	30	8	3-6-10	d 1	11	4	20		7		
	d 1	11	2	16			d 1	11	4	20		9		
	d 1	11	2	16			12DV7	t 2	8	9	18	8	6-7	
12CA5	3	11	3	16	1	2-5-6-7	d 1	8	9	26	1	2		
	Ignore glow on 2 - Cont test 2-5						d 1	8	9	26		3		
12CD6	3	11	2	16	3	4-8-10	Cont test 4-5							
●12CK3	4	11	4	14	9	2-7	12DV8	te 2	11	4	14	2	3-6-7	
	Ignore glow on 2 - Cont test 2-7						d 1	11	4	11	8	9		
●12CL3	4	11	4	14	9	2-7	d 1	11	4	11		1		
	Ignore glow on 2 - Cont test 2-7						12DW5	2	11	4	21	7	1-3-6-9	
12CM6	2	11	4	16	7	1-3-6-9	Ignore glow on 3 - Cont test 3-6							
	Ignore glow on 3 - Cont test 3-6						12DW7	t 2	8	9	14	8	6-7	
12CN5	3	11	3	16	1	2-5-6-7	t 2	8	9	16	3	1-2		
	Ignore glow on 2 - Cont test 2-5						12DW8	t 2	11	4	14	8	6-7	
12CR6	d 1	11	3	16	1	2	t 2	11	4	14	3	1-2		
	pe 2	11	3	16			d 1	11	4	10	8	9		
12CS6	2	11	3	14	2	1-5-6-7	12DY8	te 2	11	4	12	2	1-3-6	
12CT3	4	11	4	14	9	2-6	t 2	11	4	14	7	8-9		
	Ignore glow on 2 - Cont test 2-6						12DZ6	t 2	11	3	14	7	1-5-6	
12CT8	t 2	11	4	16	3	1-2	12DZ8	t 2	11	4	22	8	1-9	
	pe 2	11	4	16	9	6-7-8	pe 2	11	4	20		3-6-7		
12CU5	3	11	3	16	1	2-5-6-7	12E5	3	11	2	26	8	3-5	
	Ignore glow on 2 - Cont test 2-5						12EA6	2	11	3	14	7	1-5-6	
12CU6	3	11	2	16	8	4-5-10	12EC8	pe 2	11	4	12	8	6-7-9	
12CX6	2	11	3	14	7	1-2-5-6	t 2	11	4	14	3	1-2		
12D4	3	11	7	16	3	5	12ED5	2	11	3	14	1	2-5-6-7	
12DB5	3	11	4	18	2-7	Ignore glow on 2 - Cont test 2-5								
	Ignore glow on 3						12EG6	a 2	11	3	32	2	5-6-7	
	Cont test 2-3-6-7						o 2	11	3	14		1-6		
12DE8	pe 2	11	4	16	9	1-6-7-8	2	11	3	14	7	1-5-6		
	d 1	11	4	10	2	3								

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
12EL6	d	1	11	3	18	7									
	d	1	11	3	18	6	12HG7	2	8	6	16	1	2-7-8		
	t	2	11	3	16	1-2		Cont test 3-9							
12EM6	t	2	11	4	14	2	12HL5	2	11	4	18	3	1-2-7-9		
	d	1	11	4	12	9		Ignore glow on 1 - Cont test 1-2							
12EN6	2	11	7	14	8	3-4-5	12HL7	2	8	6	16	1	*		
12EZ6	2	11	4	14	7	1-5-6		*2-3-7-8-9 - Ignore glow on 3							
12F8	pe	3	11	4	20	7	12HU8	pe	2	11	4	18	7	1-2-3	
	d	1	11	4	16	6		pe	2	11	4	18		6-8-9	
	d	1	11	4	16	1	●12JB6	4	11	5	14	3	*		
12FK6	t	2	11	3	16	2		*1-2-6-7-8-10							
	d	1	11	3	8	6	12JF5	Cont test 1-7 & 2-6							
	d	1	11	3	8	5		2	11	1	18	4-10	2-3-11		
12FM9	t	1	11	3	16	2		Do not attach grid lead to top							
	d	1	11	3	16	6	tube terminal								
	d	1	11	3	16	5		Cont test 3-11 & 4-10							
12FQ7	t	2	11	5	18	3		Cathode short test - throw 4-10							
	t	2	11	5	18	6-7	together								
12FR8	pe	2	11	4	14	5		Grid short test - throw 3-11							
	t	2	11	4	16	2	together								
	d	1	11	4	20	2		12JM6	3	11	1	14	2	3-4-5-10	
12FS5	2	11	3	14	2-7	1-5-6		Ignore glow on 4							
		Cont test 2-7					12JN6	pe	3	11	1	14	2	*	
12FV7	t	2	8	9	14	3		*3-4-7-10-11 - Ignore glow on 4							
	t	2	8	9	14	8	12JN8	t	2	11	5	14	3	1-2	
12FX5	pe	3	11	3	14	1		pe	2	11	5	14	8	6-7-9	
		Ignore glow on 2-5					12JQ6	pe	2	11	4	18	9	*	
12FX6	3	11	4	14	1	2-5-6-7		d	2	11	4	26		6	
		Cont test 2-5						*1-2-3-7-8 - Ignore glow on 7							
12FX8	t	2	11	4	16	7		May glow on 2 - Cont test 7-8							
	h	2	11	4	14		12JS6	4	11	12	14		*		
12FY8	t	2	11	4	16	8		*3-4-5-9-10-11							
	p	2	11	4	14	2		Cont test 3-11 & 4-10 & 5-9							
12G11	pe	2	11	1	14	2		Do not attach grid lead to top							
	pe	2	11	1	14	9	tube terminal								
12G-B3	3	11	7	16	8	4-5-10	●12JT6	pe	3	11	4	16	3	*	
12GC5	3	11	5	16	7	*		*1-2-6-7-9 - Ignore glow on 1-7							
		*1-3-6-8-9					12JZ8	t	2	11	12	18	11	2-10	
		Cont test 1-8 & 3-6						pe	3	11	12	14	9	4-6-7-8	
12GE5	3	11	12	16	4-10	*		t	2	11	5	16	3	1-2	
		*2-3-7-11 - Ignore glow on 3					12KA8	pe	2	11	5	14		6-7-8-9	
●12GJ5	3	11	5	16	3	*		pe	2	11	5	16	3	2-6-7	
		*1-2-6-7-10					12KL8	d	2	11	5	16		8	
		Cont test 1-7 & 2-6						t	3	11	5	14	1	8-9	
12G-K17	4	11	7	14	3	5		12KY8	pe	4	11	5	16	3	2-6-7
12GN7	2	8	4-5	14	1	*	●12MD8	t	2	11	4	18	7	3-6	
		*2-3-7-8-9						t	2	11	4	18		2-8	
		Ignore glow on 3 - Cont test 4-5						t	2	11	4	18		1-9	
●12GT5	4	11	5	14	3	*		12R5	3	11	3	16	1	2-5-6-7	
		*1-2-6-7-9							Ignore glow on 2 - Cont test 2-5						
		Cont test 1-7 & 2-6					12R-K19	1	11	4	10	10	2-9		
12GV5	2	11	12	14	4-10	*			Ignore glow on 2 - Cont test 2-9						
		*3-5-7-9-11					12R-LL5	t	2	11	5	18	3	1-2	
		Cont test 4-10 & 3-7-11 & 5-9						t	2	11	5	18	8	6-7	
12GW6	3	11	7	16	8	4-5-10		12SN7	t	2	11	7	16	6	4-5
▲12H-B25	3	11	4	16	9	*			t	2	11	7	16	3	1-2
		*1-2-6-7-10 - Ignore glow on 1-6					12SQ7	t	3	11	7	22	3	2-6	
		Cont test 1-2-3-6-7-8						d	1	11	7	16		4	
12HE7	d	4	8	10	14	2			d	1	11	7	16		5
	pe	3	8	10	14	8	5-9-11								

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TUBE		A	B	C	D	CATH SHORTS	TEST	TUBE		A	B	C	D	CATH SHORTS	TEST	
12SX7	t	3	11	7	20	3	1-2	14JG8	d	2	11	5	16		2	
	t	3	11	7	20	6	4-5		d	2	11	5	16		6	
12SY7		3	11	2	18	6	3-4-5-8		t	2	11	5	20	7	8-9	
12T10	pe	2	11	12	16	2	3-5-6-7	15AF11	t	2	11	12	16	7	3-4	
	pe	3	11	12	14	9	8-10-11		t	2	11	12	16	5	6-8	
12U7	t	3	8	9	20	8	6-7	15BD11	pe	2	11	12	14	9	2-10-11	
	t	3	8	9	20	3	1-2		t	3	11	12	18	7	3-4	
	Cont	test	4-5						t	2	11	12	14	5	6-8	
12V6		3	11	2	20	8	3-4-5	15CW5	pe	2	11	12	14		2-10-11	
12W6		3	11	2	16	8	3-4-5		pe	3	11	4	14	3	*	
12X4	p	4	11	3	14	7	1		*1-2-6-7-8-9							
	p	4	11	3	14		6		Ignore	glow	on	1-2-6-7-8-9				
13CW4	t	1	11	12	10	8	2-4	15EA7	t	3	11	8	14	3	1-2	
13DE7	t	3	11	4	22	8	6-7		t	4	11	8	14	6	4-5	
	t	3	11	4	16	9	1-2-3	15EW6	t	2	11	3	12	2	1-5-6	
	Ignore	glow	on	2	-	Cont	test	15EW7	t	2	11	4	16	8	6-7	
13DR7	t	2	11	4	18	8	6-7		t	2	11	4	14	9	1-2-3	
	t	2	11	4	14	9	1-2-3	15FM7	Ignore	glow	on	2	-	Cont	test	2-3
	Ignore	glow	on	2	-	Cont	test		t	3	11	12	14	7	3-5-8	
13EM7	t	2	11	7	18	6	4-5		t	2	11	12	18	9	10-11	
	t	2	11	7	12	3	1-2	15FY7	Cont	test	3-8				3-5	
13FD7	t	2	11	4	16	8	6-7		t	3	11	12	14	7		
	t	2	11	4	12	9	1-2-3		t	2	11	12	18	9	10-11	
	Ignore	glow	on	2	-	Cont	test	15HA6	pe	3	11	4	14	1	*	
13FM7	t	3	11	1	14	7	3-5-8		*2-3-6-7-8-9							
	t	2	11	1	18	9	10-11		Cont	test	6-8	&	3-9			
	Ignore	glow	on	3				15HB6	4	11	5	12	1	*		
13FR7	t	2	11	4	12	8	6-7		*2-3-6-7-8-9							
	t	2	11	4	12	9	1-2-3	●15KY8	Cont	test	3-9	&	6-8		8-9	
	Ignore	glow	on	2					t	2	11	5	20	1		
▲13GB5		3	11	5	14	3-8			pe	4	11	5	16	3	2-6-7	
	*1-2-6-7-10	-	Ignore	glow	on	1-6		15LE8	pe	2	11	4	18	3	1-8-9	
	Cont	test	3-8	&	1-2	&	6-7		pe	2	11	4	18		6-8-9	
●13GF7	t	1	11	5	8	1	8-9	15MF8	t	2	11	1	16	11	2-10	
	t	3	11	5	14	3	2-6		pe	2	11	1	16	9	4-6-7-8	
13J10	pe	2	11	12	14	3	2-9-11		Ignore	glow	on	6	-	Cont	test	6-7
	pe	4	11	12	40	8	4-5-6-7	●15MX8	t	2	11	5	20	1	8-9	
13JT8	t	2	11	5	16	1	2-3		pe	4	11	5	16	3	2-6-7	
	pe	3	11	5	14	6	7-8-9	16AK9	t	2	8	6	20	7	2-3	
13JZ8	pe	2	11	1	20	9	4-6-7-8		pe	2	8	6	20	7	5-8-9	
	t	2	11	1	20	11	2-10		t	2	8	6	20	7	10-11	
	Cont	test	6-7						Cont	test	1-6-12					
13V10	pe	2	11	12	18	9	8-10-11	16AQ3	2	11	4	12	10	3-8-9		
	pe	2	11	12	18	2	3-6-7		Ignore	glow	on	3-8				
13Z10	pe	2	11	12	14	3	2-9-11		Cont	test	1-2-3-6-7-8-9					
	pe	4	11	12	40	8	4-5-6-7	16BQ11	pe	2	11	12	20	6	2-3-4-5	
14BF11	pe	2	11	12	16	2	3-5-6-7		pe	2	11	12	20	11	7-8-9-10	
	pe	2	11	12	14	9	8-10-11	16BX11	t	2	12	1	20	4	5-6	
14BL11	t	2	11	12	18	6	5-7		t	2	12	1	22	9	7-8	
	pe	2	11	12	16	4	3-9		pe	2	12	1	20	10	2-3-11	
14BR11	pe	2	11	12	16	8	2-10-11	16C-B28	2	12	12	14	4-10	*		
	t	2	11	12	18	5	6-8		*3-5-7-9-11							
	t	2	11	12	18	7	9-10		Cont	test	4-10	&	3-7-11	&	5-9	
14GT8	pe	2	11	12	16	4	2-3-11	16GK6	2	12	4	12	1	2-3-7-9		
	d	2	11	5	16				Ignore	glow	on	3				
	d	2	11	5	16			16GY5	2	12	12	14	4-10	*		
14GW8	t	2	11	5	18	7	8-9		*3-5-7-9-11							
	t	2	11	4	18	2	1-9		Cont	test	4-10	&	3-7-11	&	5-9	
	pe	2	11	4	18	7	3-6-8	16HB5	3	11	1	14	4-10	*		
									*2-3-7-11	-	Ignore	glow	on	3		
									Must	show	short	on	4-10			

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST	
16KA6	2	11	1	16	10	3-5	17EW8	t	2	12	5	14	8	6-7
	Cont test	4-11					t	2	12	5	14	3	1-2	
16LD6	3	11	4	14	1	2-6-7-8	t	3	12	12	14	7	3-5	
	Cont test	4-10	& 3-7-11	& 5-9			t	2	12	12	18	9	10-11	
16LU8	t	2	11	12	18	11	3	12	1	16	4-10	*		
	pe	4	11	12	14	9	*2-3-7-11 - Ignore glow on 3							
16MY8	Ignore	glow	on	6	- Cont	test 6-7	● 17GJ5	3	12	5	16	3	*	
	t	2	11	12	18	11	*1-2-6-7-10							
	pe	4	11	12	14	9	Cont test 1-7 & 2-6							
16Y9	Ignore	glow	on	6	- Cont	test 6-7	● 17GT5	4	12	5	14	3	*	
	pe	2	11	5	16	7	*1-2-6-7-9							
	pe	2	11	5	16	2	Cont test 1-7 & 2-6							
17AB10	pe	2	11	1	16	3	17GV5	2	12	12	14	4-10	*	
	pe	4	11	1	40	8	*3-5-7-9-11							
17AV5	3	12	2	18	3	1-5-8	17GW6	3	12	7	16	8	4-5-10	
17AX3	3	12	12	16	7	4-10	17H3	3	12	4	18	1	3-8	
	Cont	test	4-10				Ignore	glow	on	3	- Cont	test 3-8		
17AX4	3	12	7	20	3	5	▲ 17H-B25	3	11	4	16	9	*	
● 17AY3	4	12	4	14	9	2-7	*1-2-6-7-10 - Ignore glow on 1-6							
▲ 17B-B14	Ignore	glow	on	2		*	Cont	test	1-2-3-6-7-8					
	2	11	4	14	3-8		17HC8	t	2	12	4	14	8	1-9
	*1-2-6-7-10 - Ignore	glow	on	1-6			pe	2	12	4	14	2	3-6-7	
	Cont	test	1-2-3-6-7-8				● 17JB6	4	12	5	14	3	*	
17BD11	t	3	12	1	18	7	*1-2-6-7-8-10							
	t	2	12	1	14	5	Cont	test	1-7 & 2-6					
	pe	2	12	1	14		● 17JF6	2	12	4	18	3	*	
17BE3	1	12	1	8	7	4-10	*1-2-6-7-10 - Ignore glow on 1-2-6							
	Ignore	glow	on	4			Cont	test	1-2-6-7					
17BF11	pe	2	12	12	16	2	● 17JG6	4	12	4	14	3	1-2-7-9	
	pe	2	12	12	14	9	Ignore	glow	on	1-2				
● 17BH3	4	12	5	14	9	2-7	Cont	test	1-7					
	Ignore	glow	on	2			17JK8	t	2	12	5	14	3	1-2
17BJ6	2	12	3	14	2	1-5-6-7	t	1	12	5	8	8	6-7	
17BQ6	3	12	2	18	8	4-5-10	17JM6	pe	3	12	1	14	2	*
17BR3	2	11	4	12	10	2-9	*3-4-5-10 - Ignore glow on 4							
● 17BS3	Ignore	glow	on	2	- Cont	test 2-9	17JN6	pe	3	12	1	14	2	*
	d	4	12	4	14	9	*3-4-7-10-11 - Ignore glow on 4							
17BW3	Ignore	glow	on	2			17JQ6	pe	2	11	4	21	9	*
	3	12	12	16	7	4-10	d	2	11	4	28		6	
17BZ3	Ignore	glow	on	4			*1-2-3-7-8 - Ignore glow on 7							
	4	12	12	12	7	4-10	May	glow	on	2	- Cont	test 7-8		
17C9	Ignore	glow	on	4			● 17JR6	4	12	5	14	3	*	
	te	3	12	5	14	10	*1-2-6-7-9 - Ignore glow on 1							
	te	3	12	5	14	6	Cont	test	1-7					
● 17CK3	4	12	4	14	9	2-7	17JS6	4	12	12	14	2	*	
	Ignore	glow	on	2	- Cont	test 2-7	*3-4-5-10-11							
● 17CL3	4	12	4	14	9	2-7	Cont	test	3-11 & 4-10					
	Ignore	glow	on	2	- Cont	test 2-7	● 17JT6	pe	3	12	4	16	3	*
17CT3	4	12	4	14	9	2-6	*1-2-6-7-9 - Ignore glow on 1-7							
	Cont	test	2-6	- Ignore	glow	on 2	17JZ8	t	2	12	12	18	11	2-10
17CU5	3	12	3	16	1	2-5-6-7	pe	3	12	12	14	9	4-6-7-8	
	Ignore	glow	on	2	- Cont	test 2-5	Cont	test	6-7					
17D4	3	12	7	16	3	5	● 17KV6	2	11	4	16	3	1-2-7-9	
17DE4	2	12	7	14	3	5	Ignore	glow	on	1-2				
17DG6	3	12	2	18	8	3-4-5	Cont	test	1-7					
17DM4	4	12	8	14	3	5	17L6	3	12	2	16	8	3-4-5	
17DQ4	4	12	8	14	3	5	17R5	3	12	3	16	1	5-6-7	
17DQ6	3	12	2	16	8	4-5-10	17RK19	2	11	4	12	10	2-9	
● 17DW4	4	11	4	14	9	2-7	Ignore	glow	on	2	- Cont	test 2-9		
	Cont	test	2-7											

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST
17X10	pe	4	12	12	38	8							
	pe	2	12	12	16	3							
17Y9	pe	2	12	5	16	7							
	pe	2	12	5	16	2							
18A5	3	12	2	18	3								
18AJ10	pe	2	12	1	20	2							
	pe	2	12	1	20	9							
18DZ8	t	2	12	4	22	8							
	pe	2	12	4	20	2							
18EA8	pe	2	12	4	14	7							
	t	2	12	4	14	8							
18FW6	2	12	3	14	7								
18FX6	2	12	3	14	2								
18FY6	t	2	12	3	16	2							
	d	1	12	3	22								
	d	1	12	3	22								
▲18GB5	pe	3	12	4	14	3-8							
	Ignore glow on	1-6											
	Cont test	3-8,	1-2 &	6-7									
18GD6	2	12	4	16	7								
18GV5	2	12	12	14	4-10	*							
*3-5-7-9-11													
Cont test 4-10 & 3-7-11 & 5-9													
18HB8	t	2	12	4	14	2							
	pe	2	12	4	14	8							
18R-AL1	t	3	12	4	20	8							
	t	2	12	4	16	9							
	Ignore glow on	2 -	Cont test	2-3									
19AU4	4	12	7	12	3								
19BG6	3	12	2	18	3								
19C8	t	2	12	4	16	7							
	d	1	12	4	8								
	d	1	12	4	8	3							
	d	1	12	4	8								
19CG3	4	12	12	14	7								
	Ignore glow on	4											
19CL8	t	2	12	4	14	3							
	te	2	12	4	14	8							
19D8	h	2	12	4	14	3							
	t	2	12	4	14								
19DE7	t	3	12	4	20	8							
	t	3	12	4	14	9							
	Ignore glow on	2 -	Cont test	2-3									
19EA8	pe	2	12	4	14	7							
	t	2	12	4	14	8							
19EW7	t	2	12	4	16	8							
	t	2	12	4	14	9							
	Ignore glow on	2 -	Cont test	2-3									
19EZ8	t	2	12	4	18								
	t	2	12	4	18								
	t	2	12	4	14	1							
19FL8	pe	2	12	4	14	3							
	d	1	12	4	10								
	d	1	12	4	10								
19FX5	3	12	3	14	1								
	Ignore glow on	2-5											
19GQ7	d	2	12	4	14	1							
	d	2	12	4	14	7							
	d	2	12	4	14	9							
19HR6	2	12	4	14	7								
						1-2-5-6							

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
21JZ6	2	12	12	16	2	3-4-5-10	24JZ8	t	2	13	12	18	11	2-10	
	Ignore glow on 4-5						pe	3	13	12	14	9	4-6-7-8		
	Cont test 4-10						Cont test 6-7								
21KA6	2	12	1	16	10	3-5	●24LQ6	3	13	5	14	3	*		
	Cont test 4-11						*1-2-6-7-8-10								
▲21KQ6	3	12	4	14	9	*	Cont test 1-7 & 2-6								
	*1-3-6-8-10 - Ignore glow on 1-3-6						25AV5	3	13	2	16	3	1-5-8		
	Cont test 1-2-3-6-7-8						25AX4	4	13	7	14	3	5		
21LG6	2	12	1	20	4-10	*	▲25B-B14	2	13	4	14	3-8	*		
	*3-5-9-11						*1-2-6-7-10 - Ignore glow on 1-6								
	Must show short on 3-4-5-9-10-11						Cont test 1-2-3-6-7-8								
●21LR8	t	2	12	4	16	1	8-9	25BK5	2	13	4	14	6	1-3-7-8	
	pe	2	12	4	16	3	2-6-7	25BQ6	3	13	2	16	8	4-5-10	
21LU8	t	2	12	12	18	11	2-10	25CD6	3	13	2	16	3	5-8-10	
	pe	4	12	12	14	9	4-6-7-8	25CG3	4	13	12	14	7	4-10	
21MY8	t	2	12	12	18	11	2-10	●25CK3	4	13	4	14	9	2-7	
	pe	4	12	12	14	9	4-6-7-8	●25CM3	4	13	4	14	9	2-7	
●22BH3	Ignore glow on 6	-	Cont test 6-7				Ignore glow on 2	-	Cont test 2-7						
	4	12	5	14	9	2-7	●25CT3	4	13	4	14	9	2-7		
22BW3	Ignore glow on 2						Ignore glow on 2	-	Cont test 2-7						
	3	12	12	16	7	4-10	25CU6	3	13	2	16	8	4-5-10		
22DE4	Ignore glow on 4						25D8	t	3	13	2	28	1	5-6	
●22JF6	4	13	7	14	3	5	pe	2	13	2	20		3-4-10		
	2	12	4	18	3	*	d	1	13	2	16		8		
	*1-2-6-7-10 - Ignore glow on 1-2-6						25DK4	2	13	3	14	7	5		
	Cont test 1-2-6-7						Cont test 4-6								
●22JG6	4	12	5	14	3	*	●25DL3	2	13	4	18	10	2-7		
	*1-2-6-7-9 - Cont test 1-7						Must show short on 2-7								
●22JR6	4	12	5	14	3	*	25DN6	2	13	2	14	3	5-8-10		
	*1-2-6-7-9 - Cont test 1-7						25DQ6	3	13	2	16	4	4-5-10		
●22JU6	Ignore glow on 1						25DT5	2	13	4	16	7	1-3-6-9		
	2	12	4	16	3	*	Ignore glow on 3	-	Cont test 3-6						
●22KM6	*1-2-6-7-10 - Ignore glow on 1-2-6						25E5	pe	4	13	2	14	3-8	*	
	Cont test 1-2-6-7						*1-4-5-10								
●22KV6	2	12	4	16	3	1-2-7-9	Cont test 1-4, 3-8 & 2-7								
	Ignore glow on 1-2						25EC6	3	13	2	16	3	5-8-10		
	Cont test 1-7						25EH5	2	13	3	14	1	2-5-6-7		
23JS6	4	13	12	14	2	*	Ignore glow on 2	-	Cont test 2-5						
	*3-4-5-9-10-11						25EZ5	3	13	2	14	1-8	3-4-5-10		
	Do not attach grid lead to top						Ignore glow on 3								
	tube terminal						Cont test 1-3-4-8								
	Cont test 3-11, 4-10 & 5-9						25F5	2	13	3	16	1	2-5-6-7		
	Ignore glow on 3-4-5-9-10						Ignore glow on 2	-	Cont test 2-5						
23Z9	t	2	7	6	20	7	2-3	25G-B6	3	13	7	16	8	4-5-10	
	CAUTION-Remove tube before						▲25HX5	3	13	4	18	2-3	1-6-7-9		
	resetting controls						Cont test 2-3								
	t	2	12	12	18	7	10-11	25JQ6	pe	2	13	4	21	9	*
	pe	3	12	12	16	7	5-8-9	d	2	13	4	28		6	
24AX4	4	13	7	14	3	5	*1-2-3-7-8 - Ignore glow on 7								
24BF11	pe	2	13	12	16	2	3-5-6-7	Cont test 7-8 - May glow on 2							
	pe	3	13	12	14	9	8-9-11	t	2	13	12	18	11	2-10	
24GA7	d	4	13	12	14	8	11	pe	3	13	12	14	9	4-6-7-8	
	pe	3	13	12	14	5	2-3-4-7	Cont test 6-7							
●24JE6	3	13	5	14	3	*	25L6	3	13	2	16	8	3-4-5		
	*1-2-6-7-8-10						25N6	3	13	2	26	8	3-4-5		
	Cont test 1-7 & 2-6						25W4	3	13	7	16	3	5		
							25W6	3	13	2	16	8	3-4-5		

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TUBE		A	B	C	D	CATH SHORTS	TEST	TUBE		A	B	C	D	CATH SHORTS	TEST
25X6	p	4	13	2	14	4	3	▲30KG6		2	14	4	16	9	*
	p	4	13	2	14	8	5		*1-3-6-8-10 - Ignore glow on 1-3-6						
25Y4	1	13	2	8	8		5		Cont test 1-2-3-6-7-8						
26AQ8	t	2	13	5	14	8	6-7	30M-P23		2	14	3	18	1	2-5-6-7
	t	2	13	5	14	3	1-2	30M-P27		3	14	3	18	1	2-5-6-7
26DQ5	3	13	2	14	3-6		*		Cont test 2-5						
	*1-4-5-8-10 - Ignore glow on 1-4							31AL10	t	2	10	6	22	7	2-3
	Cont test 1-3-4-5-6-8								t	2	10	6	20	10	9-11
26HU5	2	14	7	18	2-6		*		pe	2	10	6	20	7	4-5-8
	*1-3-5-10 - Cont test 1-2-5-6							31JS6		4	14	12	14	2	*
26HV5	2	13	1	20	4		*		*3-4-5-9-10-11						
	*2-3-7-10-11								Cont test 3-11, 4-10, 5-9						
26LX6	Must show short on 2-3-7-10-11								Do not attach grid lead to top						
	2	13	12	16	2		*	tube terminal							
	*3-4-5-9-10-11							●31LQ6		3	14	5	14	3	*
	Do not attach grid lead to top								*1-2-6-7-8-10						
	tube terminal								Cont test 1-2-6-7						
	Cont test 3-11 & 4-10 & 5-9							●31LR8	t	2	14	4	16	1	8-9
▲27GB5	3	13	5	14	3-8		*		pe	2	14	4	16	3	2-6-7
	*1-2-6-7-10 - Ignore glow on 1-6							●31LZ6	2	12	5	18	3	*	
	Cont test 3-8, 1-2 & 6-7								*1-2-6-7-9 - Cont test 1-7 & 2-6						
▲27KG6	2	13	4	16	9		*	32A8	t	2	14	4	14	8	1-9
	*1-3-6-8-10 - Ignore glow on 1-3-6								pe	2	14	4	14	2	3-6-7
	Cont test 1-2-3-6-7-8							32GA7	d	4	14	12	14	8	11
27LF6	2	13	1	24	2		*		pe	3	14	12	14	5	2-3-4-7
	*3-4-10-11							32HQ7	d	2	11	7	20	4	2
	Must show short on 3-4-10-11								pe	2	11	7	20	8	5-9-11
▲28GB5	pe	3	13	4	14	3-8	1-2-6-7	33GT7	d	4	12	7	12	4	2
	Ignore glow on 1-6								pe	3	12	7	14	8	*
28HA6	pe	3	13	4	14	1	*	33GY7	d	4	12	7	12	4	2
	*2-3-6-7-8-9								pe	3	12	7	14	8	*
	Cont test 6-8, 3-9							33HE7	d	4	14	10	14	4	2
28HD5	pe	3	14	1	14	4-10	*		pe	3	14	10	14	8	5-9-11
	*3-5-7-9-11 - Ignore glow on 4-9-11							●33JR6	4	14	5	14	3	*	
29GK6	2	14	4	12	1	2-3-7-9			*1-2-6-7-9 - Ignore glow on 1 - Cont test 1-7						
	Ignore glow on 3							33JV6	pe	3	14	12	14	2	*
▲29KQ6	3	13	4	14	9	*			*3-4-7-10-11 - Ignore glow on 4						
	*1-3-6-8-10 - Ignore glow on 1-3-6							34CD3	4	14	12	14	7	4-10	
	Cont test 1-2-3-6-7-8								Ignore glow on 4						
▲29LE6	3	14	4	18	9	*		34CE3	4	14	12	14	7	4-10	
	*1-2-3-6-7-8-10								Ignore glow on 4						
	Cont test 1-8 & 2-7 & 3-6							●34CM3	4	14	4	14	9	2-7	
30A5	3	14	3	12	1	2-5-6-7			Ignore glow on 2 - Cont test 2-7						
	Ignore glow on 2-Cont test 2-5							34R3	d	4	14	4	14	10	2-9
30AE3	2	14	4	12	10	3-8-9			Ignore glow on 2						
	Ignore glow on 3-8							35B5	3	14	3	18	2	1-5-6-7	
	Cont test 1-2-3-6-7-8-9								Ignore glow on 1 - Cont test 1-7						
30AG11	d	1	14	1	8	2	3	35C5	3	14	3	16	1	2-5-6-7	
	d	1	14	1	8	11	10		Ignore glow on 2 - Cont test 2-5						
	t	2	14	1	14	4	5-6	35CD6	3	14	2	16	3	5-8-10	
	t	2	14	1	14	9	7-8	35DZ8	t	2	14	5	16	8	1-9
30CW5	2	14	4	14	3	*			pe	2	14	5	14	2	3-6-7
	*1-2-6-7-8-9 -Ignore glow on 1-6-7							35EH5	2	14	3	14	1	2-5-6-7	
	May show short on 1-2-6-7-8-9								Ignore glow on 2 - Cont test 2-5						
30HD5	pe	3	14	1	14	4-10	*	35GL6	2	14	3	16	1	2-5-7	
	*3-5-7-9-11 - Ignore glow on 4-9-11								Ignore glow on 4-5-Cont test 4-10						
30HJ5	pe	3	14	12	14	2	*								
	*3-4-5-7-9-10-11														
30JZ6	Ignore glow on 3-4-5														
	2	14	12	16	2	3-4-5-10									
	Ignore glow on 4-5-Cont test 4-10														

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST
35HB8	t 2	14	4	14	2	1-3	50HN5	3	15	4	16	3	1-2-7-9
	pe 2	14	4	14	8	6-7-9		Ignore	glow	on	1	-	Cont test 1-2
35L6	2	14	2	14	8	3-4-5	50JY6	4	15	2	14	8	1-4-5-10
35LR6	4	14	12	14	2	*		Ignore	glow	on	1	-	Cont test 1-4
	*3-4-5-9-10-11						50L6	3	15	2	16	8	3-4-5
	Cont test 3-11 & 4-10 & 5-9						50X6	p 4	15	1	12	2	3
35W4	4	14	3	12	7	5		p 4	15	1	12	7	6
	Cont test 4-6						53HK7	d 4	13	10	14	4	2
35Y4	3	14	8	16	7	2		pe 3	13	10	14	8	5-9-11
35Z5	3	14	7	16	8	5		pe 3	13	10	14	8	5-9-11
	Cont test 2-3						d 4	13	10	14	4	2	
36AM3	3	14	3	16	7	5	60HL5	2	15	4	18	3	1-2-7-9
	Cont test 4-6							Ignore	glow	on	1	-	Cont test 1-2
36KD6	2	14	1	20	2	*	84	p 3	8	1	20	4	2
	*3-4-10-11							p 3	8	1	20		3
	Cont test 3-4-5-9-10-11						713A	2	8	2	14	3-5	4-6-8
38HE7	d 4	12	10	14	4	2	2050	3	8	2	16	8	3-5-6
	p 3	12	10	14	8	5-9-11	2051	3	8	2	16	8	3-5-6
38HK7	d 4	12	10	14	4	2	5755	t 1	8	9	10	7	6-8
	pe 3	12	10	14	8	5-9-11		t 1	8	9	10	2	1-3
40FR5	2	14	3	14	1	2-5-6-7	5844	t 2	8	3	16	7	2-5
	Ignore glow on 2 - Cont test 2-5						5845	t 2	8	3	16		1-6
40KD6	3	14	1	12	2	3-5-9-11		p 4	4	7	100		1
	Ignore glow on 3-5-9							p 4	4	7	100		5
▲40KG6	2	14	4	16	9	*		Cont test 3-4-7					
	*1-3-6-8-10 - Ignore glow on 1-3-6						Good tube reads above 30						
	Cont test 1-2-3-6-7-8						6012	2	8	2	21	1	3-5-8
42	3	8	1	22	5	2-3-4	6084	3	8	4	20	3	*
▲42EC4	4	14	4	14	10	2-7-8		*1-2-7-8-9 - Cont test 2-7					
	Ignore glow on 2-7						6216	2	8	4	12	3-8	1-2-6-7
	Cont test 2-7-8							Cont test 1-3-6-8					
42KN6	4	12	7	14	2	*		Ignore glow on 1					
	*3-4-5-9-10-11						6227	3	8	4	18	3	2-7-8
	Ignore glow on 3-4-5-9-10							Cont test 1-8					
	Cont test 3-4-5-9-10-11						6485	2	8	3	14	7	1-2-5-6
50BM8	t 2	15	4	14	8	1-9	6664	2	8	3	14	7	1-6
	pe 2	15	4	14	2	3-6-7	6676	2	8	3	14	2	1-5-6-7
50C5	3	15	3	20	1	2-5-6-7	6686	1	8	5	3	3	2-7-8-9
	Ignore glow on 2 - Cont test 2-5					6689	2	8	4	18	3	1-2-6	
50CA5	3	15	3	16	1	2-5-6-7	6883	2	11	2	14	*	3-5-10
	Ignore glow on 2 - Cont test 2-5						*1-4-6 - Cont test 1-4-6						
50DC4	1	15	3	8	7	5	6939	pe 1	8	9	10	2	3-6-8
50E5	pe 4	15	2	14	3-8	*		pe 1	8	9	10		1-6-7
	*1-4-5-10						7119	t 2	11	8	18	3	1-2
	Cont test 1-4 & 3-8 & 2-7							t 2	11	8	18	6	7-9
50EH5	3	15	3	14	1	2-5-6-7	7233	2	8	4	18	8	*
	Ignore glow on 2 - Cont test 2-5							*1-2-3-6-7-9					
50FA5	2	15	3	14	1	2-5-6-7		Cont test 1-2-3-6-7-9					
	Ignore glow on 2 - Cont test 2-5						7308	t 2	8	4	18	3	1-2
50FE5	2	15	2	12	8	3-4-5		t 2	8	4	18	8	6-7
50FK5	2	15	3	14	1	2-5-6-7	7320	3	8	4	18	3	1-2-7-9
	Ignore glow on 2 - Cont test 2-5							Ignore glow on 1 - Cont test 1-2					
50FY8	t 2	15	4	16	8	1-9	7360	2	8	4	14	1	2-3-6-7
	pe 2	15	4	14	2	3-6-7	7408	3	8	2	20	8	3-4-5
50GY7	d 4	12	7	12	4	2	7543	2	8	4	16	7	1-2-5-6
	pe 3	12	7	14	8	*	7551	2	11	4	14	1-9	*
	*5-9-10-11							*2-3-6-7-8 - Ignore glow on 3					
50HC6	3	13	6	14	1	2-5-7		Cont test 1-3-8-9					
50HK6	pe 3	15	3	14	1	2-5-7							

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TUBE	A	B	C	D	CATH SHORTS	TEST
7558	2	8	4	14	1-9	*
	*2-3-6-7-8 - Ignore glow on 3					
	Cont test 1-3-8-9					
7581	2	7	2	14	8	3-4-5
7586	2	8	10	12	8	2-4
7591	2	8	2	14	5	3-4-6-8
	Ignore glow on 4 - Cont test 4-8					
7643	t	2	8	4	18	8 1-9
	pe	2	8	4	16	7 2-3-6
7687	t	2	8	4	14	8 1-9
	pe	2	8	4	14	7 2-3-6
7695	2	15	4	14	7	1-6-9
7701	2	11	4	16	*	2-6-7-9
	*1-3-8 - Ignore glow on 7					
	Cont test 1-3-7-8-9					
7716	t	2	11	4	14	1 2-3
	pe	2	11	4	14	6 7-8-9
7717	2	8	3	14	2-7	1-5-6
7724	d	2	11	5	16	2
	d	2	11	5	16	6
	t	2	11	5	18	7 8-9
7728	t	3	8	9	16	8 6-7
	t	3	8	9	16	3 1-2
	Cont test 4-5					
7729	t	2	8	9	18	8 6-7
	t	2	8	9	18	3 1-2
	Cont test 4-5					
7730	t	3	8	9	20	8 6-7
	t	3	8	9	20	3 1-2
7731	t	2	8	4	14	8 1-9
	pe	2	8	4	14	7 2-3-6
7733	2	8	6	14	1	2-7-8
	Cont test 3-4-5-9					
7751	2	8	2	18	8	1-3-4-5
	Must show short on 1-4					
7754	2	8	4	14	7	1-6-9
7788	2	8	4	16	13	2-6-7-9
	Ignore glow on 6-7					
	Cont test 1-3-6-9					
•7868	3	8	4	16	3	*
	*1-2-6-7-9 - Ignore glow on 1-2-6-7					
7898	t	2	10	9	18	3 1-2
	t	2	10	9	16	8 6-7
	Fil Cont - throw 4-5 together					
7984	3	11	1	16	*	**
	*2-6-8-9					
	**3-4-5-7-10-11					
	Ignore glow on 3-4-5-7-11					
	Must show short on 2-6-8-9					
8032	2	11	2	21	*	3-5-10
	*1-4-6 - Cont test 1-4-6					
8077	2	11	4	14	1	2-7-8
	Cont test 3-9					
8102	t	3	11	5	14	2 1-3
	pe	3	11	5	14	8 6-7-9
8106	3	11	5	14	*	1-3-7-8
	*2-6-9 - Cont test 2-6-9 & 3-8					
8156	3	11	12	16	*	**
	*2-6-8-9					
	**3-4-5-7-10-11					
	Cont test 2-6-8-9 & 7-11 & 3-4-5					

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TUBE	A	B	C	D	CATH SHORTS	TEST
▲8233	3	8	4	14	7-9	1-3-8
	Cont test 2-6-7-9					
▲8278	2	8	4	16	2-6	*
	*1-3-7-8-9 - Ignore glow on 1-3-7					
	Cont test 1-2-3-6-7-8					
8417	2	8	2	18	8	3-4-5
8425	3	8	3	18	7	1-2-5-6
8426	3	11	3	19	7	1-2-5-6
8552	2	11	2	21	*	3-5-10
	*1-4-6 - Cont test 1-4-6					
	<u>FOREIGN</u>					
E-80F	3	8	4	20	3	*
	*1-2-7-8-9 - Cont test 2-7					
E-80L	3	8	4	18	3	2-7-8
	Cont test 1-8					
E-81L	1	8	5	3	3	2-7-8-9
E-83F	2	8	4	18	3	1-2-6
E-84L	3	8	4	18	3	1-2-7-9
	Ignore glow on 1 - Cont test 1-2					
E-188CC	t	2	8	4	18	3 1-2
	t	2	8	4	18	8 6-7
E-235L	2	8	2	18	8	1-3-4-5
E-810F	2	8	4	16	13	2-6-7-9
	Ignore glow on 6-7					
	Cont test 1-3-6-9					
EC-81	2	8	4	16	3	1-8
EC-91	2	8	3	16	25	1-6-7
	Ignore glow on 1					
	Cont test 1-2-5-6					
ECF-202	t	2	8	5	18	1 9-10
	pe	2	8	5	18	2 3-7-8
EF-37A	2	8	2	20	8	3-4-5-10
EL-81	2	8	5	14	1-3	2-7-8-9
	Cont test 1-3					
▲EL-503	2	8	4	16	2-6	*
	*1-3-7-8-9 - Ignore glow on 1-3-7					
	Cont test 1-2-3-6-7-8					
▲EL-504	3	8	5	14	3-8	*
	*1-2-6-7-10 - Ignore glow on 1-6					
	Cont test 1-2-3-6-7-8					
▲EL-505	2	8	4	16	9	*
	*1-3-6-8-10 - Ignore glow on 1-3-6					
	Cont test 1-2-3-6-7-8					
EL-802	3	8	4	14	1	2-6-7-8
	Cont test 6-8 & 3-9					
EQ-80	2	8	4	16	38	1-6-7
	Cont test 3-8					
EY-80	3	8	4	16	3	9
EY-81	4	8	4	12	10	2-9
	Ignore glow on 2					
	Cont test - all pins					
EY-82	3	8	4	16	3	9
GZ-32	p	4	7	2	12	4
	p	4	7	2	12	6
HL-94	3	14	3	12	1	2-5-6-7
	Ignore glow on 2 - Cont test 2-5					
LCL-80	t	2	6	4	18	3 1-2
	pe	2	6	4	16	6-8-9

▲ - USE MAGNOVAL SOCKET