

IMPORTANT NOTES

\* Special short test for tubes with internal connections. A good tube will not show short when the levers shown in parentheses ( ) are moved simultaneously. If moved individually it will show short.

Be sure to set filament selector switch to .63 volts when checking for continuity or short tests.

Tubes followed by suffixes such as G, GT, Y, W, A, B, etc., in general can be tested by the same setup listed for the tubes without a suffix.

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
00A	2	5	30	BC	D	1AD2	4	1.4	60	N	HM	1BQ2	4	1.4	66	N	BEH
01A	2	5	45	BC	D	No short test. Good tube reads above 20 Tube damaged if H or M is moved.						Tube damaged if BE or H is moved.					
0A2	4	Off	40	AE	BDG	1AE4	1	1.4	23	BCF	AE	1BX2	4	1.4	67	N	ADFJ
Good tube reads above 10.						1AF4	1	1.4	28	BCF	AE	No short test.					
0A3	4	Off	30	E	BCG	1AF5	1	1.4	75	DEF	A	1BY2	4	1.4	60	N	HM
Good tube reads above 10.						1AH5	1	1.4	32	DEF	CG	No short test. Good tube reads above 20. Tube damaged if H or M is moved.					
0A4	4	Off	40	G	BE	1AJ	1	1.4	53	C	G	1C3	1	1.4	25	BCDEF	G
0B2	4	Off	44	E	BG	1AJM	1	1.4	24	BCF	G	No open element test on BE & F.					
0B2	4	Off	95	AE	BDG	No open element test on B.						1C5	2	1.4	37	CDE	G
Good tube reads above 10.						1AU2*	4	1.4	100	(AJ)	E	1C6	2	2	42	CD	F
0B3	4	Off	30	E	BCG	1AX2	4	1.4	95	N	BEH	1C6	1	2	68	BEN	F
Good tube reads above 10.						Good tube reads above 25.						1C7	2	2	41	EF	G
0C2	4	Off	40	AE	BDG	1AY2	4	1.4	58	N	G	1C7	1	2	58	CDN	G
Tube normally shows leakage. Good tube reads above 10.						Insert into pins 2 & 7 of 9 pin min.						1C21	4	Off	45	E	BG
0C3	4	Off	30	E	BCG	1B3	1	1.4	98	N	ACDEFGH	1D5	2	2	39	CDN	G
Good tube reads above 10.						Use G & N only for element test. Good tube reads above 28.						1D5GP	2	2	33	CDN	G
0D3	4	Off	30	E	BCG	1B4	1	2	27	BCN	D	1D7	1	2	31	EF	G
Good tube reads above 10.						1B4P	2	2	35	BCN	D	1D7	1	2	95	CDN	G
0G3	4	Off	32	ACEF	BDG	1B5(25S)	1	2	31	BE	F	1D8	2	1.4	48	FN	G
Good tube reads above 10.						1B5(25S)	1	2	40	D	F	1D8	2	1.4	37	CDE	G
0Y4	4	Off	22	E	CGH	1B5(25S)	1	2	40	C	F	1D8	1	1.4	95	G	H
0Z4	4	Off	22	E	CH	1B7	1	1.4	26	EF	G	1D13*	1	1.4	75	(BF)	CG
1A3	1	1.4	75	BF	CG	1B7	1	1.4	95	CDN	G	1DG9	4	1.4	80	N	CE
1A4	1	2	28	BCN	D	1B8	2	1.4	32	CDE	G	Good tube reads above 30. No short test.					
1A5	2	1.4	50	CDE	G	1B8	2	1.4	60	FN	G	1DK1	1	1.4	70	N	B
1A6	2	2	50	CD	F	1B8	1	1.4	95	H	G	Insert 2 base leads into pins 1 & 2 of 9 pin min. skt. Use plate cap on single lead. Good tube reads above 20.					
1A7	1	2	95	BEN	F	1BC2	4	1.4	70	N	BEH	1DK29	1	1.4	32	N	B
1A7	1	1.4	31	EF	G	Tube damaged if BE or H is moved.						Insert 2 base leads into pins 1 & 2 of 9 pin min. skt. Use plate cap on single lead. Good tube reads above 20.					
1A7	1	1.4	95	CDN	G	1BG2	1	1.4	32	N	B	1DN5	1	1.4	52	D	G
1AB4	1	1.4	23	BCF	AE	Insert 2 base leads into pins 1 & 2 of 9 pin min. skt. Use plate cap on single lead. Good tube reads above 20.						1DN5	1	1.4	27	BCF	G
1AB5	1	1.4	25	BCF	GH	1BK2	4	1.4	52	N	BEH						
1AB6	1	1.4	25	BCDEF	G	No short test. Good tube reads above 30.											
No open element test on B, E & F.																	

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)					
1E3	3	1.4	30	AH	CE	1LA4	2	1.4	40	BCF	H	1T5	2	1.4	40	CDE	G					
1E4	2	1.4	45	CE	G	1LA6	1	1.4	30	CD	H	1U4	2	1.4	30	BCF	AE					
1E5	1	2	35	CDN	G		1	1.4	95	BEF	H	1U5	2	1.4	40	BCF	A					
1E7	2	2	30	CDH	G	Good tube reads above 40 on test 2.						1U6	1	1.4	66	D	A					
	2	2	30	EFH	G	1LB4	2	1.4	40	BCF	H		1	1.4	34	CD	BEFG					
1F1	1	1.4	24	BCF	G								1	1.4	40	BEF	CDG					
No open element test on B.						1LB6	1	1.4	32	BCDEFG	H	Good tube reads above 30 on test 2.										
1F2	2	1.4	37	BCF	AE	1LCS	1	1.4	32	BCDF	EH	1V	3	6.3	24	B	GD					
1F3	2	1.4	35	BCF	G	1LC6	1	1.4	32	CD	H	1V2*	1	.63	76	(AHJ)	E					
1F4	3	2	47	BCD	E	1LC8	1	1.4	80	BEF	H	Good tube reads above 20. H may not show short.										
1F5	2	2	36	CDE	G	1LD5	1	1.4	32	BCF	H	1X2	4	1.4	67	N	ADFJ					
1F6	1	2	37	BCN	F								4	1.4	67	N	BEH					
	1	2	95	D	F	Good tube reads above 20 on test 2.						1Z2	4	1.4	85	N	BEG					
	1	2	95	E	F	1LES	2	1.4	37	BF	H	2A3	3	2.5	28	BC	D					
1F7 (GV)	1	2	35	CFN	G							2A4	3	2.5	25	E	G					
	1	2	95	E	G	1LG5	2	1.4	35	BCF	DEH		3	2.5	25	C	EG					
	1	2	95	D	G	1LH4	1	1.4	28	BF	H	No short test.										
1FD1	1	1.4	32	DEF	CG		1	1.4	44	D	H	2A5	3	2.5	36	BCD	EF					
	1	1.4	53	C	G	1LN5	2	1.4	40	BCDF	EH	2A6	3	2.5	26	BN	EF					
1FD3	1	1.4	25	DEF	G	1N2	4	1.4	75	N	GH		1	2.5	40	C	EF					
	1	1.4	55	C	G	1N5	1	1.4	27	CDN	G		1	2.5	40	D	EF					
1G3	1	1.4	100	N	ACDEFGH	1N6	2	1.4	38	CDE	G	2A7	2	2.5	32	E	FG					
Use G & N only for element test.							1	1.4	95	F	G		2	2.5	64	BCDN	FG					
Good tube reads above 10.						Good tube reads above 20 on test 2.						2AF4*	2	2.35	21	(AG) (BF)	DE					
1G4	1	1.4	30	CE	G	1P1	1	1.4	23	BCF	E	2AH2	4	2.5	76	N	ABEFGML					
1G5	2	2	39	CDE	G	1P5	1	1.4	31	CDN	G	2AS2 Due to varying arrangements of internal connections, this tube cannot be tested.										
1G6	1	1.4	35	CD	G	1P10	2	1.4	35	BCDF	AG	2AV2*	1	1.4	100	(AJ)	E					
	1	1.4	35	EF	G	1P11	1	1.4	23	BCF	E	Good tube reads above 35.										
1H2	4	1.4	84	N	ADFJ	1O5	2	1.4	33	CDE	G	2AZ2	4	2	63	N	ADFJ					
1H4	2	2	41	CE	G	1R4	1	1.4	57	D	GH	2B3	2	2	40	N	B					
1H5	1	1.4	33	CN	G	Good tube reads above 10.						Good tube reads above 10.										
	1	1.4	40	E	G	1R5	1	1.4	21	D	AE	2B4	3	2.5	24	BC	DE					
1H6	1	2	30	CF	G		1	1.4	95	BCF	AE	2B6	2	2.5	95	B	FG					
	1	2	40	E	G	1RK23	1	1.4	90	N	ADFJ		3	2.5	50	CD	EG					
	1	2	40	D	G	Tube damaged if ADF or J is moved.						2B7	3	2.5	47	BCN	FG					
1H35	1	1.4	25	BCDEF	G	Good tube reads above 35.							1	2.5	40	E	FG					
No open element test on BE & F.						1RK41	4	1.4	52	N	BEH		1	2.5	40	D	FG					
1J3/1K3	1	1.4	100	N	ACDEFGH	No short test. Good tube reads above 30.						2BA2*	4	2	53	(AJ)	E					
Good tube reads above 10.						1S2A	1	1.4	90	N	ADFJ	2BJ2	4	2.35	65	N	ADFJ					
Tube damaged if ACDEFGH is moved.						Good tube reads above 35.						Tube damaged if ADFJ or BEH is moved.										
1J5	2	2	38	CDE	G	1S4	2	1.4	30	BCDF	AE	2BM*						1	2	19	(BG)E	(AF)D
1J6	2	2	39	CD	G	1S5	1	1.4	25	DEF	G	2BU2	1	2.5	38	N	HM					
	2	2	39	EF	G		1	1.4	55	C	G	Good tube reads above 10.										
1LA	2	1.4	37	BCF	AE	1SA6	2	1.4	30	CDFH	G	Tube damaged if H or M is moved.										
1L5	1	1.4	34	CD	G	1S66	1	1.4	36	CDH	G	2C21	2	6.3	29	CN	BG					
	1	1.4	37	BEF	G		1	1.4	90	E	G		2	6.3	29	DE	FG					
Good tube reads above 40 on test 2.						1T4	2	1.4	35	BCF	G											

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)				
2C22	3	6.3	22	N	GH	2HM5	3	2	18	AE	BDG	3BE6	2	3.15	21	A	BD				
Short top caps together.						Tube damaged if B or G is moved.						2						3.15	33	AEF	BD
2C26	3	6.3	35	N	GH	2HQ5	3	2	18	AE	BDG	3BH2	4	3.15	60	N	AEJ				
2C51	2	6.3	23	CD	BFGHJ	Tube damaged if B or G is moved.						Tube damaged if AE or J is moved.									
2C51	2	6.3	23	FG	BCDHJ	2S/4S(G-2)						3BL2	1	3.15	38	N	HM				
2C52	2	12.6	26	DE	FG	1	2.5	45	B	DE	Good tube reads above 35.										
2C52	2	12.6	26	AB	CG	2T4*	2	2.35	22	(AG) (BF)	DE	Tube damaged if H or M is moved.									
2CN3	4	1.4	50	N	CEG	2V2	4	1.4	97	N	BDFGH	3BM2	4	3.15	40	N	HM				
Tube damaged if CE or G is moved.						2V3	1	2.5	96	N	G	Tube damaged if H or M is moved.									
2CW4	1	2	18	BD	HM	Good tube reads above 20.						3BN2	4	3.15	100	N	ABEFJ				
2CY5*	2	2	22	AEF	(BG)C	2W3	2	2.5	36	D	H	Tube damaged if ABEF or J is moved.									
2D21	3	6.3	18	AEFG	BD	2X2 (879)4	2.5	52	N	D	3BM4*	1	3.15	19	(BG)E	(AF)D					
2DLA*	3	2.5	18	(ACFG)JH	BE	2X2A	4	2.5	44	N	D	3BM6	1	3.15	35	BEFG	AC				
2DS4	1	2	18	BD	HM	Good tube reads above 40.						Good tube reads above 20.									
2DV4*	3	2	19	(AB) (DF)	GM	2X3	3	2.5	43	D	H	3BS2	1	3.15	40	N	HM				
2DZ4*	3	2.35	21	(AG) (BF)	DE	2Y2	1	2.5	95	N	D	Tube damaged if H or M is moved.									
2E5	2	2.5	44	BC	EF	Good tube reads above 40.						Good tube reads above 25.									
Eye CL	4	2.5	0	BD	CEF	2Z2 (G84)3	2.5	66	B	D	3BT2	1	3.15	38	N	HM					
Eye OP	4	2.5	0	D	BCEF	3A2	4	3.15	54	N	ADFJ	Tube damaged if H or M is moved.									
2E22	3	6.3	25	BCDN	E	3A3	4	3.15	56	N	B	Good tube reads above 20.									
2E24	3	2.5	22	CEN	BG	Good tube reads above 25.						3BU8	1	3.15	22	BCFG	AE				
2E24	3	2.5	22	CEN	BG	3A4	2	1.4	26	BCDF	AG	1	3.15	22	BGHJ	AE					
A, D & F should show short when moved to top position.						3A5	2	1.4	30	BC	D	3BW2	1	3.15	38	N	HM				
2E25	3	6.3	26	DEHN	B	3A5	2	1.4	30	EF	D	Tube damaged if H or M is moved.									
2E26*	3	6.3	21	CEN	(ADF)B	3A8	1	1.4	38	CDN	BG	Good tube reads above 20.									
2E30	3	2.5	26	AEF	CD	1	1.4	36	EF	BG	3BY6	2	3.15	25	AF	BD					
2EA5*	2	2.35	22	AEF	(BG)C	1	1.4	45	H	BG	1	3.15	30	EG	BD						
2EG4	2	2.0	19	BD	HM	3AF4*	2	3.15	21	(AG) (BF)	DE	2	3.15	20	AEFG	BC					
2ER6*	2	2	20	BEF	(AG)D	3AL5	1	3.15	20	B	DE	No open element test of F & G.									
2EV5*	2	2.5	22	AEF	(BG)D	1	3.15	20	G	AD	3C2	1	1.4	60	N	DEFHG					
2FH5*	2	2.35	21	BE	(AG)D	3AT2	4	3.15	61	N	ABEFJ	3C4	1	1.4	23	BCF	E				
2FQ5	3	2.5	20	BE	AGD	3AU6	2	3.15	22	ABEF	DG	3C5	2	1.4	34	CDE	BG				
Tube damaged if A or G is moved.						3AV6	1	3.15	21	AG	BD	3C6	2	1.4	40	CD	AH				
2F85*	3	2.5	20	AF	(BG)DE	1	3.15	43	E	BD	2	1.4	40	EF	AH						
2FV6	2	2.5	20	AEF	DG	1	3.15	43	F	BD	3CA3	4	3.15	75	N	G					
No open element test on E.						3AW2	4	2.5	52	N	ABEFJ	3CB6	2	3.15	21	AEFG	BC				
2G5	2	2.5	44	BC	EF	Tube damaged if ABEF or J is moved.						3CES*	2	3.15	21	AEF	(BG)D				
Eye CL	4	2.5	0	BD	CEF	3AW3	2	3.15	68	N	CGH	No open element test on E.									
Eye OP	4	2.5	0	D	BCEF	Good tube reads above 10.						3CF6	1	3.15	19	AEFG	BD				
2GK5	3	2.35	20	BE	ADG	3B2	1	3.15	50	N	ACDEG	No open element test on E & G.									
Tube damaged if A or G is moved.						Good tube reads above 10.						3CN3	4	3.15	50	N	ACEG				
2GU5*	1	2.5	19	A	(BG)D	3B4	3	1.4	47	ACG	E	Tube damaged if ACE or G is moved.									
2GU5*	1	2.5	29	EF	(BG)D	3B5	2	1.4	35	CDE	BG	3CS6	1	3.15	21	AF	BC				
2GW5*	2	2.5	20	A(BF)	DE	3B7	1	1.4	33	BC	AH	1	3.15	40	EG	BC					
2HAS	3	2	18	AE	BDG	1	1.4	33	FG	AH	3CU3	1	3.15	20	N	B					
Tube damaged if B or G is moved.						3BA6	2	3.15	23	ABEF	DG	Good tube reads above 20.									
2HK5	3	2	18	AE	BDG	3BC5*	2	3.15	20	AEF	(BG)C										
Tube damaged if B or G is moved.						No open element test on E.															



Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
4GM8	2	4.2	20	AEF	BDG	4KN8	3	4.7	19	AB	CE	5B8	2	4.7	21	BC	AE
4GS7	3	4.2	19	FGJ	CEH						HE					FHJ	ABCEG
	3	4.2	21	AB	CEH	4KT8	3	4.7	19	BGHJ	ACE						
Tube damaged if C or H is moved.						Tube damaged if A or C is moved.						No open element test on J.					
4GS8	2	4.2	20	BCFG	AE	4LJ8	2	5	18	FGJ	CEH	5BC3*	3	5	28	(EF)	BC
	2	4.2	20	BGHJ	AE						CEH		3	5	26	(HJ)	BC
4GW5*	2	4.2	20	A(BF)	DE	Tube damaged if C or H is moved.						Tube damaged if B or C is moved.					
4GX7	2	4.7	20	BFG	ACE	4LU8	3	4.2	20	AEFG	BD	5BE8	2	4.7	20	AB	CE
	3	4.7	21	HJ	ACE						AE		2	4.7	20	FGJ	CEH
Tube damaged if A or C is moved.						4MK8	2	4.2	20	BCFG	AE	5BK7	2	4.7	21	FG	EH
4GZ5*	3	4.2	19	(BE)F	ADG						AE		2	4.7	21	AB	CE
4HA5	3	4.2	18	AE	BDG	4MP12	3	4.7	22	AEF	BD	5BQ7	2	4.7	22	AB	CD
Tube damaged if B or G is moved.						4MP26	2	4.2	21	AEF	BC		2	4.7	22	FG	DH
4HA7	1	4.2	20	BL	CM	4RHH2	2	4.2	21	AB	CD	5BR8	2	4.7	20	AB	CE
	2	4.2	23	JK	DM						DH		2	4.7	20	FGJ	EH
4HC7*	1	4.2	20	BL	CM	4RHH8	3	4.7	19	AB	CE	No open element test on F.					
	2	4.2	23	(BK)J	DM						EH	5BS8	2	4.7	22	AB	CD
4HK5	3	4.2	18	AE	BDG	4RHH15	3	4.2	22	FG	EH		2	4.7	22	FG	DH
Tube damaged if B or G is moved.											CE	5BT8	3	4.7	22	FGH	DJ
4HM5	3	4.2	18	AE	BDG	5A8	3	2.5	24	ACFGH	J		1	4.7	26	A	CD
Tube damaged if B or G is moved.						5AM8	1	4.7	18	BCFJ	AD		1	4.7	26	B	CD
4HM6	3	4.2	18	BH	ACE	No open element test on F & J.						5BW8	1	4.7	20	A	BE
	1	4.2	32	GJ	ACE						H		1	4.7	20	C	BE
Tube damaged if A or C is moved.						5AN8	2	4.7	22	FGH	EJ		2	4.7	21	FHJ	EG
4HR8*	2	4.2	21	A(BG)FHJ	CE	No open element test on F.						No open element test on J.					
4HQ5	3	4.2	18	AE	BDG						CE	5BZ7	2	4.7	20	AB	CD
Tube damaged if B or G is moved.						5AQ4	3	5.0	25	F	H		2	4.7	20	FG	DH
4HS8	2	4.2	24	BHJ	AE						H	5CG8	1	4.7	20	AB	CEH
	2	4.2	21	CFG	AE	5AQ5*	3	4.7	27	(AG)EF	BD		1	4.7	19	FGJ	CEH
4HT6	3	4.2	19	BH	ACE	5AR4	3	5	26	D	H	No element or short test on C & H.					
	1	4.2	34	GJ	ACE						H	5CL8	2	4.7	22	AB	CD
Tube damaged if A or C is moved.						5AS4	1	5	23	D	H		2	4.7	22	FGJ	DH
4JCS	2	4.7	19	BGHJ	ACE						H	5CM6*	3	4.7	21	A(CF)J	DG
Tube damaged if A or C is moved.						5AS8	3	4.7	22	ABJ	CD		2	4.7	24	AJ	DH
4JD6	3	4.7	19	BH	ACEG						DH	5CM8	3	4.7	22	BFG	CD
Tube damaged if A or C is moved.						5AT8	2	4.7	21	AB	CE	5CQR	1	4.7	19	AJ	EH
4JH6	3	4.2	20	AFEG	BD						CE		1	4.7	19	BCF	EG
4JK6	3	4.7	18	AF	BD	No open element test on F & H.						5CR8	2	5	20	AJ	EH
	1	4.7	33	EG	BD	5AU4	3	5	30	F	H		2	5	19	BFG	CE
4JL6	3	4.7	18	AF	BD						H	5CZ5	1	4.7	21	ACFJ	EG
	1	4.7	32	EG	BD	5AV8	2	4.7	22	FHJ	EG		1	5	19	AB	CD
4JW8	2	4.7	20	BCF	EG	No open element test on F.						5DJ4*	3	5	30	(CD)	DH
	2	4.7	21	AJ	EH						AE		3	5	30	(EF)	AB
4KE8	2	4.2	18	BCF	EG	5AW4	4	5	18	D	H	Tube damaged if GH or AB is moved.					
	2	4.2	18	AJ	EH						H	5EA8	2	4.7	21	AJ	EH
4KFB	2	4.2	20	BGHJ	AE	5AX4	3	5	40	D	H		2	4.7	21	BCF	EG
	2	4.2	20	BCFG	AE						H	5EH8*	2	4.7	21	GHJ	(AF)E
						5AZ4	3	5	43	F	H		2	4.7	21	BC	(AF)E
											H	5EU8	2	4.7	21	AGJ	EH
													2	4.7	21	BC	EF



Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6AF11	2	6.3	21	CD	GM	6AM8	1	6.3	18	BCFJ	AD	6AU7	2	3.15	25	AB	CDE
	2	6.3	21	FH	EM	No open element test on F & J.						6AU8	2	6.3	21	BC	AD
	3	6.3	20	KL	BJM	1	6.3	18	H	DG		2	6.3	21	GHJ	DF	
6AG5*	3	6.3	20	AEF	(BG)C	6AM4*	2	6.3	20	(AG)(BF)	CE	No open element test on J.					
No open element test on E.						6AN5*	3	6.3	17	AEF	(BG)D	6AV5	2	6.3	25	AEH	BC
6AG7	3	6.3	17	DFH	EG	6AN6	1	6.3	23	B	FG	6AV6	1	6.3	21	AG	BD
6AG9	2	6.3	19	BDKL	JM	1	6.3	23	C	FG		1	6.3	43	E	BD	
	2	6.3	20	EG	FM	1	6.3	23	D	FG		1	6.3	43	F	BD	
6AG11	1	6.3	20	C	BM	1	6.3	23	E	FG		6AV11	2	6.3	23	BL	CM
	1	6.3	20	K	LM	6AN8	2	6.3	22	FGH	EJ	2	6.3	23	EG	FM	
	2	6.3	20	EF	DM	No open element test on F.						2	6.3	23	JK	DM	
	2	6.3	20	GH	JM	2	6.3	23	AB	CE		2	6.3	23	JK	DM	
6AH4	2	6.3	20	AE	GH	6AQ5*	3	6.3	27	(AG) EF	BD	6AW8	3	6.3	20	GHJ	DF
6AH6	2	6.3	22	AEF	BCG	6AQ6	1	6.3	20	AG	BC	3	6.3	23	BC	AD	
6AH7	3	6.3	30	AC	BG	1	6.3	40	E	BC		6AX3	3	6.3	23	DK	GM
	3	6.3	30	EF	DG	1	6.3	40	F	BC		6AX4	3	6.3	22	E	CH
6AH9*	3	6.3	19	(EF)HJL	GM	6AQ7	1	6.3	22	DE	FH	6AX5	3	6.3	32	C	BH
	3	6.3	28	BC	DM	1	6.3	34	C	BH		3	6.3	32	E	BH	
6AJ4*	2	6.3	19	(ACDF)JE	BH	1	6.3	34	A	BH		6AX6G	1	6.3	19	E	GH
6AJ5*	2	6.3	23	AEF	(BG)C	6AQ8	2	6.3	21	AB	CE	1	6.3	19	C	DG	
6AJ8	2	6.3	22	ABFG	CE	2	6.3	21	FG	EH		6AX7	1	3.15	20	AB	CDE
	2	6.3	23	HJ	CE	6AR5	3	6.3	30	AEF	BD	1	3.15	20	FG	DEH	
6AK5*	2	6.3	22	AEF	(BG)C	6AR6	3	6.3	20	CEG	AH	6AX8	2	6.3	20	AJ	EH
6AK6	3	6.3	30	ABEF	CG	6AR8	3	6.3	22	BCFJ	EG	2	6.3	20	BCF	EG	
6AK7	3	6.3	17	DFH	EG	No open element test on B, C & J.						No open element test on F.					
6AK8	1	6.3	20	A	DG	3	6.3	22	ACFH	EG		6AY3	3	6.3	22	BG	EJ
	1	6.3	20	B	CD	No open element test on A, C & H.						J may show leakage.					
	1	6.3	21	HJ	DG	6AR11	3	6.3	18	CE	BDFM	6AY11	1	6.3	19	GH	JM
	1	6.3	40	F	DG	3	6.3	18	JK	GHLM		1	6.3	19	EF	DM	
6AK9	3	6.3	30	BC	GM	6AS5*	1	6.3	19	(BE) FG	AC	1	6.3	19	K	LM	
	3	6.3	22	KL	GM	6AS6	2	6.3	25	AEFG	BC	1	6.3	19	C	BM	
	3	6.3	21	EHJ	GM	6AS7	3	6.3	16	AB	CH	6AZ8	2	6.3	21	HJ	EG
6AK10	3	6.3	20	JK	DM	3	6.3	16	DE	FH		2	6.3	21	ABF	CE	
	3	6.3	20	EG	FM	6AS8	1	6.3	19	ABJ	CEG	6B4	3	6.3	28	CE	G
	3	6.3	20	BL	CM	1	6.3	18	F	EH		6B5	3	6.3	45	BD	CEF
6AL3	3	6.3	19	ABCFGHJ	EN	6AS11	2	6.3	21	CD	GM	3	6.3	63	CD	BEF	
No element test on top levers.						2	6.3	21	FH	EM		6B6	3	6.3	32	CN	GH
6AL5	1	6.3	22	B	DE	3	6.3	18	KL	BJM		1	6.3	40	D	GH	
	1	6.3	22	G	AD	6AT6	1	6.3	20	AG	BC	1	6.3	40	E	GH	
6AL6	3	6.3	24	DEN	GH	1	6.3	35	E	BC		6B7	3	6.3	50	BCN	FG
6AL7	1	6.3	40	ACDEF	BH	1	6.3	35	F	BC		1	6.3	40	D	FG	
Eye OP	4	6.3	0	C	BDFH	6AT7N	3	6.3	20	AB	CE	1	6.3	40	E	FG	
Eye CL	4	6.3	0	C	BH	3	6.3	20	FG	EH		6B8	3	6.3	45	CFN	GH
6AL9	2	6.3	20	BDKL	JM	6AT8	2	6.3	21	AB	CE	1	6.3	40	E	GH	
	3	6.3	20	EG	FM	2	6.3	20	FGHJ	CE		1	6.3	20	H	JM	
6AL11	1	6.3	21	CDFG	BM	No open element test on F & H.						2	6.3	21	CD	BM	
	3	6.3	20	HKL	JM	6AU4	4	6.3	22	E	CH	1	6.3	20	K	JM	
6AM4*	1	6.3	18	(ACDF)JE	BH	6AU5	3	6.3	22	AEH	CG	2	6.3	21	CD	BM	
6AM5	1	6.3	22	AEG	BD	6AU6	2	6.3	22	ABEF	DG	2	6.3	22	EF	GM	



Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6B2B	3	6.3	16	FG	EH	6CH3*	3	6.3	19	(BG)	EJ	6CX8	1	6.3	20	BC	AD
	3	6.3	16	AB	CE	6CH6	4	6.3	19	BGHJ	CE	2	6.3	23	GHJ	DF	
6C4	2	6.3	25	AEF	DG	6CH7*	1	6.3	19	AB	CE	6CY5*	3	6.3	22	AEF	(BG)C
6C5	2	6.3	30	CE	GH		1	6.3	19	FG	E(HJ)	1	6.3	20	FG	DH	
6C6	1	6.3	21	BCN	DEF	6CH8	2	6.3	22	HJ	AE	3	6.3	20	ABC	DJ	
6C7	1	6.3	21	B	FG		2	6.3	21	BCG	EF	6CZ5	1	6.3	20	ACFJ	EG
	1	6.3	40	D	FG	No open element test on B.						6D1*	1	6.3	20	(AE)F	DG
	1	6.3	40	E	FG	6CH40	2	6.3	22	ABFG	CE	6D4	3	6.3	20	AG	DE
6C8	2	6.3	27	CN	DG		2	6.3	23	HJ	CE	6D5	3	6.3	32	CE	GH
	2	6.3	27	EF	GH	6CJ3*	3	6.3	20	(BG)	EJ	6D6	3	6.3	27	BCDN	EF
6C9	2	6.3	20	ABC	EK	6CJ6	3	6.3	16	ABFGHJN	CE	6D7	2	6.3	28	BCN	DFG
	2	6.3	20	GHJ	EF	6CK3*	3	6.3	18	(BG)	EJ	6D8	2	6.3	34	EF	GH
6C10	1	6.3	20	BL	CM	6CK4	1	6.3	21	ACE	GH		2	6.3	42	CDN	GH
	1	6.3	20	EG	FM	6CL3*	3	6.3	19	(BG)	EJ	6D10	1	6.3	18	BL	CM
	1	6.3	20	JK	DM	6CL4*	1	6.3	21	ACE	GH		1	6.3	18	EK	FM
6C16	2	6.3	22	AJ	EH	6CL5*	3	6.3	20	(AH)(DE)N B(CF)			1	6.3	18	JG	DM
	2	6.3	20	BC	EPG	6CL6*	3	6.3	22	(BJ)(CH)FG AD		6DA4	3	6.3	21	E	CG
6C18	3	6.3	17	BCG	EPH	6CL8	2	6.3	22	AB	CD	6DA5	1	6.3	22	AG	BE
	3	6.3	22	J	EFH		2	6.3	22	FGJ	DH	Eye CL	4	6.3	0	CGHJ	ABE
Tube damaged if F or H is moved.						6CM3*	3	6.3	17	(BG)	EJ	Eye OP	4	6.3	0	CHJ	ABEG
6CA4	2	6.3	22	A	CD	6CM4*	3	6.3	19	(AJ)(BFH)	CEG	6DA6	3	6.3	18	BGHJ	CE
	2	6.3	22	G	CD	Tube damaged if C or G is moved.						6DB5*	3	6.3	20	A(CF)J	(BG)D
6CA5	3	6.3	22	BEFG	AC	6CM5*	3	6.3	19	(AD)EN	CGH	6DB6	1	6.3	18	AEFG	BD
6CA7	3	6.3	22	ACDE	GH	Tube damaged if C or H is moved.						6DC6	1	6.3	18	ABFG	BD
6CA11	3	6.3	22	BC	AG	6CM6*	3	6.3	26	A(CF)J	DG	No open element test on E & G.					
	3	6.3	20	DF	AE	6CM7	2	6.3	24	AH	EJ	6DC8	2	6.3	22	ABFJ	CE
	3	6.3	20	HKL	AJ		2	6.3	26	FG	CE		1	6.3	36	G	CE
6CB5*	2	6.3	20	(AH)(DE)	B(CF)	6CM8	2	6.3	24	AJ	DH		1	6.3	36	H	CE
6CB6	2	6.3	22	AEFG	BC		2	6.3	22	BFG	CD	6DE4	4	6.3	22	E	CH
No open element test on E & G.						6CN7	1	3.15	21	GH	DEF	6DE5	2	6.3	20	AEFG	BD
6CC31	1	6.3	18	AF	DG		3	3.15	20	A	CDE	No open element test on E & G.					
	1	6.3	18	BE	DG		3	3.15	20	B	CDE	6DE7	2	6.3	26	FG	DH
6CC42	2	6.3	23	CD	BFGHJ	6CQ4	3	6.3	21	E	CH	3	6.3	22	ABC	DJ	
	2	6.3	23	FG	BCDHJ	6CQ6	1	6.3	19	AJ	EH	6DG6	3	6.3	20	CDE	GH
6CC43	2	6.3	21	AB	CE		1	6.3	19	BCF	EG	6DJ8	2	6.3	21	FG	EH
	2	6.3	21	FG	EH	6CR6	2	6.3	23	EPG	AD		2	6.3	21	AB	CE
6CD3*	3	6.3	18	(DK)	GM		1	6.3	36	B	AD	6DK3*	3	6.3	18	(BG)	DN
6CD6	3	6.3	17	EHN	BC	6CS6	1	6.3	20	AF	BC	6DK6	3	6.3	22	AEF	BCG
6CE3*	1	6.3	18	(DK)	GM		1	6.3	25	EG	BC	6DL3*	3	6.3	18	(BG)	DN
6CE5*	2	6.3	20	AEF	(BG)D	6CS7	3	6.3	24	AC	DJ	6DL4*	3	6.3	18	(ACFG)JH	BE
No open element test on E.							2	6.3	28	FG	DH	6DL5*	3	6.3	23	(AG)EF	BD
6CF6	2	6.3	22	AEFG	BC	6CT3*	3	6.3	18	(BF)	EJ	6DL7					
No open element test on E & G.						6CU5	3	6.3	18	BEFG	AD	Eye OP	4	6.3	0	E	DGH
6CF8	1	6.3	20	AFHJ	CD	6CU6	3	6.3	18	DEN	GH	Eye CL	4	6.3	0	CEF	DGH
6CG3*	3	6.3	18	(DK)	GM	6CU8	1	6.3	20	HJ	AE	No open element test.					
6CG7	2	6.3	23	AB	CD		1	6.3	19	BCG	EF	6DL8	1	6.3	40	A	EH
	2	6.3	23	FG	DH	6CW4	1	6.3	18	BD	HM		1	6.3	20	CFG	BE
6CG8	1	6.3	20	AB	CEH	6CW5*	3	6.3	16	•	CE		1	6.3	40	J	EH
	1	6.3	19	FGJ	CEH	=(AB)(FJ)(GH)						6DM4	3	6.3	22	E	CH
No element test or short test on C & H.						A, F or H is not used in some tubes.											

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6DN3*	3	6.3	18	(BG)	EJ	6EA8	2	6.3	20	AJ	EH	6EX6	3	6.3	15	EHN	CG
6DN6	3	6.3	17	EHN	CG	2	6.3	20	BCF	EG	6EY6	3	6.3	22	CDE	BH	
6DN7	3	6.3	24	AB	CG	6EB6	3	6.3	38	G	AD	6EZ5	3	6.3	21	CDE	GH
6DQ3	3	6.3	32	DE	FG	3	6.3	38	B	DE	6EZ8	1	6.3	20	BC	AD	
6DQ4	3	6.3	18	(DK)	GM	6EB8	1	6.3	20	BC	AE	1	6.3	20	FG	D	
6DQ5*	1	6.3	19	(AE)(DH)N	(CH)G	2	6.3	22	GHJ	EF	1	6.3	20	HJ	D		
6DQ6	3	6.3	22	DEN	GH	6EC4*	3	6.3	19	(BGH)	EN	6F5	1	6.3	20	DN <sup>c</sup>	GH
6DR4*	1	6.3	20	(AE)F	DG	6ED4	1	6.3	28	HN	ABCEFGJ	6F6	3	6.3	32	CDE	GH
6DR7	1	6.3	19	FG	EH	Tube damaged if ABCEFG or J is moved.						6F7	3	6.3	43	BCN	FG
6DS4	3	6.3	16	ABC	EJ	6EF6	4	6.3	18	CDE	GH	6F8	2	6.3	24	CN	DG
6DS5	1	6.3	18	BD	HM	6EH4	1	6.3	28	FN	BEJLM	2	6.3	24	EF	GH	
6DS6	1	6.3	19	AEEFG	BD	Tube damaged if BEJ or L is moved.						6F10	3	6.3	21	DFH	CEG
6DS8	3	6.3	22	ABFG	CD	6EH5	3	6.3	20	BIEFG	AD	No open element test on C & H.					
6DT3*	2	6.3	23	HJ	CD	6EH7*	2	6.3	21	BGHJ	(AC)E	6F19	1	6.3	22	BGHJ	ACE
6DT3*	3	6.3	20	(DK)	GM	6EH8*	3	6.3	20	BC	(AF)E	Tube damaged if A or C is moved.					
6DT4*	3	6.3	24	(AE)	CH	3	6.3	20	GHJ	(AF)E	6F22 1 6.3 20 AFHJ CE						
6DT5	3	6.3	22	ACFJ	EG	No open element test on J.						6F26	1	6.3	22	BGHJ	ACE
6DT6	1	6.3	20	AEEFG	BD	6EJ4	1	6.3	26	FN	EM	Tube damaged if A or C is moved.					
6DT8	3	6.3	20	AB	CE	6EJ7*	3	6.3	18	BGHJ	(AC)E	6F29*	2	6.3	21	BGHJ	(AC)E
6DU3*	3	6.3	18	(DK)	GM	6EL4	1	6.3	30	EN	ABCD <sup>FH</sup>	6F30	2	6.3	21	BGHJ	ACE
6DV4	2	6.3	19	AE <sup>DF</sup>	GM	No element tests.						Tube damaged if A or C is moved.					
6DW4	3	6.3	20	BG	EJ	6EM5	3	6.3	18	ACFJ	EG	6F33	2	6.3	25	AEEFG	BC
6DW5	1	6.3	22	ACFJ	EG	6EM7	3	6.3	19	AB	CH	6F35	2	6.3	23	AEF	BGC
6DX8	2	6.3	20	AB	CE	1	6.3	20	DE	FH	Tube damaged if B or G is moved.						
	3	6.3	20	HJ	EFG	6EN4*	1	6.3	27	(EF)N	ABCDH	6FA7 2 6.3 24 AGH DF					
6DY5	3	6.3	20	BGJ	CE	No short test.						2	6.3	24	GHJ	DF	
6DY7	3	6.3	22	ACD	GH	6EQ7	1	6.3	34	H	CE	1	6.3	48	C	DF	
	3	6.3	22	DEF	GH	Good tube reads above 25.						6FD6	1	6.3	19	ABEF	DG
H normally shows leakage.						2	6.3	22	ABFG	CE	6FD7* 1 6.3 21 FG EH						
6ZD4*	3	6.3	21	(AG)(BF)	DE	6ER5*	2	6.3	20	BEF	(AG)D	3	6.3	18	A(B)C	EJ	
6DZ7	3	6.3	22	ACD	GH	6ES5*	3	6.3	21	BE	(AG)D	6FE5	3	6.3	22	CDE	BH
	3	6.3	22	DEF	GH	6ES6	3	6.3	21	AEF	BCG	6FG5*	3	6.3	20	AEF	(BG)C
No open element test on C & F.						6ES8	2	6.3	20	AB	CE	No open element test on E.					
6DZ8	1	6.3	20	AJ	EH	2	6.3	20	FG	EH	6FG6	1	6.3	28	AJ	CE	
6E5	2	6.3	36	BC	EF	6ET6	3	6.3	20	AEF	BCG	4	6.3	100	BFGH	CE	
Eye OP	4	6.3	0	D	BCE <sup>F</sup>	6ET7	3	6.3	20	GHJ	EF	Good tube reads above 8.					
Eye CL	4	6.3	0	BD	CEF	No open element test on J.						6FG7*	2	6.3	19	AB	(CH)E
6E6	3	6.3	31	BC	DG	1	6.3	56	B	AE	AE	3	6.3	19	GJ	(CH)E <sup>F</sup>	
6E7	2	6.3	28	BCN	DFG	2	6.3	56	C	AE	BD	2	6.3	21	BE	(AG)D	
6E8	2	6.3	31	EF	DG	6EU7	2	6.3	24	EF	BH	6FH6	3	6.3	15	DEN	GH
6EA4	1	6.3	28	FN	BEJLM	2	6.3	24	GH	BJ	6FH8	2	6.3	33	AGHJ	D	
Tube damaged if BEJ or L is moved.						6EU8	2	6.3	19	AGJ	EH	2	6.3	20	BC	D	
6EA5*	2	6.3	22	AEF	(BG)C	2	6.3	19	BC	EF	1	6.3	18	F	D		
6EA7	1	6.3	22	DE	FH	6EV5	2	6.3	22	AEF	(BG)D	6FJ7	2	6.3	25	KL	JM
	3	6.3	20	AB	CH	6EV7	2	6.3	23	AB	CE	3	6.3	21	CE	JM	
						2	6.3	23	FG	EH	6FM7*	3	6.3	19	(CH)E	JM	
						6EW6	2	6.3	20	AEEFG	BD	1	6.3	20	KL	JM	
						6EW7	3	6.3	19	ABC	EJ						
						3	6.3	30	FG	EH							

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6FM8	1	6.3	20	B	CE	6GJ7*	3	6.3	19	BG	(AC)EF	6H5	2	6.3	36	BC	EF
	1	6.3	20	F	AE		3	6.3	20	HJ	(AC)E	Eye CL	4	6.3	0	BD	CEF
	1	6.3	22	HJ	EG	6GK5	3	6.3	20	BE	ADG	Eye OP	4	6.3	0	D	BCEF
6FQ5*	3	6.3	20	BE	(AG)D	Tube damaged if A or G is moved.						6H6	1	6.3	25	C	DG
6FQ7	2	6.3	23	AB	CE	6CK6*	2	6.3	20	BGH	A(C)JE		1	6.3	25	E	GH
	2	6.3	23	FG	EH	6GK17	3	6.3	22	E	CG	6H7S	3	6.3	33	BCD	FG
6FR7*	3	6.3	19	A(BC)	EJ	6GL7	3	6.3	19	AB	CH		2	6.3	52	EN	FG
	3	6.3	30	FG	EH		1	6.3	20	DE	FH	6HA5	3	6.3	18	AE	BDG
6FS5*	2	6.3	20	AF	(BG)DE	6GM5	3	6.3	21	AFJ	EG	Tube damaged if B or G is moved.					
6FV6	2	6.3	20	AEF	DG	6GM6	2	6.3	20	AEF	BDG	6HA6*	3	6.3	19	BG(FH)	ACEJ
No open element test on F.						6GM8	2	6.3	22	AB	CE	Tube damaged if C or J is moved.					
6FV8	2	6.3	21	FGJ	EH		2	6.3	22	FG	EH	6HB5*	3	6.3	18	B(CL)G	(DK)M
	2	6.3	21	AB	CE	6GN8	1	6.3	19	BC	AE	6HB6*	3	6.3	18	B(FH)	AE
6FW5	3	6.3	20	AEH	CG		3	6.3	19	GH	EFJ		1	6.3	24	(C)JG	AE
6FY5	2	6.3	20	BE	ADG	6GQ7	1	6.3	20	F	EG	6HB7	2	6.3	20	HJ	ACE
No element or short test on A & G.							1	6.3	20	H	EJ		3	6.3	20	BFG	ACE
6FY7	3	6.3	19	CE	GM		1	6.3	20	B	AE	Tube damaged if A or C is moved.					
	1	6.3	21	KL	JM	6GS7	3	6.3	19	FGJ	CEH	6HC8	3	6.3	23	CFG	BE
6G5	2	6.3	38	BC	EF		3	6.3	21	AB	CEH		3	6.3	26	AJ	EH
Eye CL	4	6.3	0	BD	CEF	Tube damaged if C or H is moved.						6HD5*	3	6.3	19	(CL)(E)JG	(DK)M
Eye OP	4	6.3	0	D	BCEF	6G88	2	6.3	20	BCFG	AE	6HD7	3	6.3	20	BFG	ACE
6G6	3	6.3	36	CDE	GH		2	6.3	20	BGHJ	AE		3	6.3	19	HJ	ACE
6G6G	2	6.3	28	CDE	BH	6GT5*	3	6.3	19	(AG)(BF)J	CE	Tube damaged if A or C is moved.					
6G7	3	6.3	36	BN	CEG	6GU5*	1	6.3	19	A	(BG)D	6HE5*	3	6.3	21	(BJ)(CK)F	(DL)M
	1	6.3	24	D	CG		1	6.3	29	EF	(BG)D	6HE7	1	6.3	19	B	DM
	1	6.3	24	F	CG	6GU7	3	6.3	22	AB	CE		3	6.3	18	EJL	HM
6G11	1	6.3	20	CDFG	BM		3	6.3	22	FG	EH	6HF5*	3	6.3	19	C(E)FHLN	(DK)M
	3	6.3	20	HKL	JM	6GV5*	3	6.3	19	CGL(E)JN	(DK)M	6HFS	1	6.3	19	BC	AE
6GA7*	3	6.3	20	(BC)DG	EM	6GV7	3	6.3	17	BCG	EPH		3	6.3	19	GH	EFJ
	3	6.3	24	L	HM		3	6.3	22	AJ	EFH	6HG5*	3	6.3	26	(AG)EF	BD
6GA8	2	6.3	22	FG	EH	Tube damaged if F or H is moved.						6HG6*	3	6.3	18	BJ	(AC)EH
	2	6.3	22	AB	CE	6GV8	1	6.3	19	AB	CE		3	6.3	20	FG	(AC)E
6GB3	3	6.3	19	DE	GH		3	6.3	20	FGJ	EH	6HJ5*	3	6.3	18	(CL)(E)JG	BDKM
6GB5*	3	6.3	19	(AB)(FG)N	CEH	6GW5*	2	6.3	20	A(BF)	DE	Tube damaged if D or K is moved.					
Tube damaged if C or H is moved.						6GW6	3	6.3	20	DEN	GH	6HJ7	3	6.3	19	BFG	ACE
6GB6	3	6.3	21	DEN	GH		1	6.3	20	AJ	BE		3	6.3	18	HJ	ACE
6GB7	3	6.3	18	DEN	BH	6GX8	1	6.3	19	A	EG	Tube damaged if A or C is moved.					
6GB9	3	6.3	22	DEN	GH		1	6.3	21	EFG	BD	6HJ8	1	6.3	19	H	EG
6GC5*	3	6.3	21	(AH)(CF)J	EG	6GX7*	2	6.3	20	BG	(AC)EF		3	6.3	19	BC	AE
6GC8	2	6.3	21	DEHN	CG		3	6.3	21	HJ	(AC)E		3	6.3	28	CFJ	AE
6GD7*	3	6.3	19	AB	(CH)E	6GY5*	3	6.3	18	(CGL)(E)JN	(DK)M	6HK5	3	6.3	18	AE	BDG
	3	6.3	19	GJ	(CH)EF	6GY6	3	6.3	19	AEEFG	BD	Tube damaged if B or G is moved.					
6GE5*	3	6.3	19	B(CL)G	(DK)M	6GY8	1	6.3	26	AB	E	6HL5*	3	6.3	18	(AB)GJ	CE
6GF5*	3	6.3	19	B(CL)G	(DK)M		1	6.3	19	CJ	EH	6HL8	2	6.3	20	AJ	EH
6GF7	3	6.3	18	BF	CE		1	6.3	22	F	EG		3	6.3	19	BC	EPG
	1	6.3	20	HJ	AE	No open element test on B & C.						6HM5	3	6.3	18	AE	BDG
6GH8	2	6.3	17	BCF	EG	6GZ5*	3	6.3	19	(BE)F	ADG	Tube damaged if B or G is moved.					
	2	6.3	17	AJ	EH	6H4	1	6.3	28	D	GH	6HM6	3	6.3	19	BH	ACE
6GJ5*	3	6.3	20	(AG)(BF)N	CE								1	6.3	34	GJ	ACE





Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6Q11	2	6.3	23	JK	DM	6SQ7	1	6.3	40	E	CG	6V8	3	6.3	28	CDE	AGH
	1	6.3	20	EG	FM		1	6.3	40	D	CG	6V7	3	6.3	46	N	GH
	1	6.3	20	BL	CM		1	6.3	20	BF	CG		1	6.3	50	D	GH
6R3	2	6.3	22	BJ	DN	6SR7	2	6.3	30	BF	CG		1	6.3	50	E	GH
6R6	3	6.3	41	CEN	GH		1	6.3	50	D	CG	6V8	1	6.3	20	G	EH
6R7	1	6.3	33	D	GH		1	6.3	50	E	CG		1	6.3	21	AF	CE
	1	6.3	33	E	GH	6SS7	3	6.3	30	DFH	CEG		2	6.3	22	B	CE
	3	6.3	37	CN	GH	6ST7	2	6.3	28	BF	CG		2	6.3	65	J	CE
6R8	1	6.3	20	A	EG		1	6.3	95	D	CG	6W4	3	6.3	18	E	CH
	1	6.3	20	F	EG		1	6.3	95	E	CG	6W5	3	6.3	25	C	GH
	2	6.3	25	B	CE	6SU7	2	6.3	25	AB	CDEFH		3	6.3	25	E	GH
	2	6.3	30	HJ	EG		2	6.3	25	DE	ABCFH	6W6	3	6.3	21	CDE	GH
6RA9*	3	6.3	22	(BG)J	AE	6SV7	2	6.3	23	BDF	CH	6W7	1	6.3	20	CDN	EGH
6RA9*	3	6.3	20	(BG)J	AD		2	6.3	28	E	CH	6X4	3	6.3	30	F	DG
6RB11*	3	6.3	21	A(CF)J	DH	6SZ7	1	6.3	50	E	CH		3	6.3	30	A	DG
6RHH2	2	6.3	21	FG	DH		1	6.3	50	D	CH	6X5	3	6.3	32	E	GH
	2	6.3	21	AB	CD		1	6.3	21	BF	CH		3	6.3	32	C	GH
6RHH8	3	6.3	19	FG	EH	6T1	2	6.3	21	(AG)(BF)	DE	6X6	2	6.3	41	E	GH
	3	6.3	19	AB	CE	6T4*	2	6.3	20	(AG)(BF)	CE	Eye CL	4	6.3	0	CD	EGH
6RK19*	3	6.3	20	(B)J	EN	6T5	1	6.3	24	BC	EF	Eye OP	4	6.3	0	D	CEGH
6RP15*	3	6.3	22	(AB)GJ	CD	Eye CL	4	6.3	0	BD	CEF	6X8	2	6.3	21	BC	EF
6RP22*	2	6.3	20	(B)J(CH)FG	AE	6T8M	2	6.3	22	CDN	GH	No open element test on J.					
6S4	3	6.3	24	CFJ	BE	6T7	1	6.3	20	CN	GH		2	6.3	20	GHJ	AEF
6S6	3	6.3	24	ADN	GH		1	6.3	40	D	GH	6Y3G	4	6.3	47	N	G
6S7	2	6.3	28	CDN	EGH		1	6.3	40	E	GH	6Y5	3	6.3	28	C	DF
6S8	1	6.3	28	FN	BG	6T8	3	6.3	32	HJ	CEG		3	6.3	28	E	DF
	1	6.3	40	A	BG		1	6.3	20	F	CEG	6Y6	3	6.3	19	CDE	GH
	1	6.3	40	D	BG		1	6.3	20	B	CEG	6Y7	3	6.3	33	CD	GH
	1	6.3	40	C	EG		1	6.3	20	A	CEG		3	6.3	33	EF	GH
6S78	2	6.3	21	AB	CG	6T9	3	6.3	20	HKL	JM	6Y10	3	6.3	20	HKL	JM
	2	6.3	21	DE	FG		1	6.3	19	BD	EM		2	6.3	20	CEFG	BM
6SA7	2	6.3	28	CDH	AFG	6T10	3	6.3	19	HK	JLM	6Z3	3	6.3	24	B	CD
	2	6.3	24	DE	FGH		1	6.3	21	CEFG	BM	6Z4	3	6.3	26	B	DE
6SB7Y	2	6.3	22	DE	AFG	6U3	3	6.3	17	J	CD		3	6.3	26	C	DE
	1	6.3	34	CDH	EFG	6U4	3	6.3	18	E	CG	6Z5	3	6.3	25	C	BOF
6SC7	3	6.3	33	BC	FG	6U5	2	6.3	34	BC	EF	(12Z5)	3	6.3	25	E	BOF
	3	6.3	38	DE	FG	Eye CL	4	6.3	0	BD	CEF	6Z7	3	6.3	32	CD	GH
6SD7	3	6.3	23	DFH	CEG	Eye OP	4	6.3	0	D	BCEF		3	6.3	32	EF	GH
6SE7	2	6.3	23	DFH	CEG	6U6	3	6.3	24	CDE	GH	6Z10	3	6.3	20	BUL	CM
6SF5	1	6.3	20	CE	BG	6U7	2	6.3	30	CDN	EGH		4	6.3	58	DEFG	HM
6SF7	1	6.3	40	E	CG	6U8	2	6.3	22	BCF	EG	6ZY5	3	6.3	36	C	GH
	3	6.3	30	BDF	CG	No open element test on F.							3	6.3	36	E	GH
6SG7*	3	6.3	19	DFH	(CE)G		2	6.3	22	AJ	EH	7A4	2	6.3	24	BF	GH
6SH7*	2	6.3	20	DFH	(CE)G	6U10	1	6.3	20	EG	FM	7A5	3	6.3	23	BCF	GH
6SJ7	2	6.3	27	DFH	CEG		2	6.3	23	JK	DM	7A6	1	6.3	28	C	BH
6SK7	3	6.3	30	DFH	CEG		2	6.3	23	BL	CM		3	6.3	28	BCF	DGH
6SL7	3	6.3	28	DE	FG	6V3	3	6.3	18	BGJ	EN	7A7	3	6.3	28	BCF	GH
	3	6.3	28	AB	CG	6V4	3	6.3	26	A	CE		2	6.3	35	CD	GH
6SN7	2	6.3	26	DE	FG		3	6.3	26	G	CE	7A8	2	6.3	44	BEF	GH
	2	6.3	26	AB	CG							7A8*	3	6.3	26	ACE	(DF)G



Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
8CY7	1	7.5	20	FG	DH	8LE8	2	7.5	19	FHJ	CGE	9GV7	3	9.45	17	BCG	EFH
	3	7.5	20	ABC	DJ		2	7.5	19	FHJ	BCE		3	9.45	22	AJ	EFH
8D8	1	6.3	21	AFHJ	CE	8LS6*	3	7.5	19	B(C)JGH	AE	9GV8	3	9.45	20	FGJ	EH
No open element test on F.						8LT8	1	7.5	18	H	EG		2	9.45	21	AB	CE
8DX8	2	7.5	20	AB	CE		1	7.5	18	F	EG	9JW8	2	9.45	20	BCF	EG
	3	7.5	20	HJ	EFG		3	7.5	19	BCJ	AE		2	9.45	21	AJ	EH
8EB8	2	7.5	22	GHJ	EF	8MD8	2	7.5	20	AJ	EG	9KC6	3	9.45	23	FGJ	AE
	1	7.5	20	BC	AE		2	7.5	20	BH	EG	9KG6*	4	9.45	21	•	EJ
8EM5	3	9.45	18	ACFG	EG	8MU8	2	7.5	20	CF	EG	•(AH)(BG)(CF)K					
8ET7	1	7.5	56	C	AE		2	7.5	22	AJ	EH	9KX6*	3	9.45	18	B(C)JGH	AE
	1	7.5	56	B	AE	8MV8	3	7.5	19	GH	EFJ	9KZ8	3	9.45	20	BGF	CE
	3	7.5	20	GHJ	EF		1	7.5	20	BC	AE		3	9.45	19	AJ	EH
No open element test on J.						8RHP1	2	7.5	22	AJ	EH	9LA6*	3	9.45	19	B(C)JGH	AE
8FE5	3	7.5	22	CDE	BH		3	7.5	20	CFG	BE	9MD8	2	9.45	20	AJ	EG
8FQ7	2	7.5	23	FG	EH	8SN7	2	7.5	26	AB	CG		2	9.45	20	BH	EG
	2	7.5	23	AB	CE		2	7.5	26	DE	FG	9MHH3	2	9.45	22	CF	EG
8FY7	3	7.5	19	CE	GM	9A8	3	9.45	18	AJ	EH		2	9.45	22	BE	CG
	1	7.5	21	KL	JM		2	9.45	20	BCF	EG	9ML8	2	9.45	20	AF	CG
8GJ7*	3	9.45	21	HJ	(AC)E	9AH9*	3	9.45	28	BC	DM		2	9.45	20	CF	EG
	3	9.45	19	BG	(AC)EF		3	9.45	19	BL	GM		2	9.45	20	BH	EG
8GN8	3	7.5	19	GH	EFJ	9AK10	3	9.45	20	BL	CM	9MN8	3	9.45	22	AJ	EG
	1	7.5	19	BC	AE		3	9.45	20	JK	DM		3	9.45	22	BL	CM
8GU7	3	7.5	22	FG	EH		3	9.45	20	JK	DM		3	9.45	22	DK	CM
	3	7.5	22	AB	CE	9AM10	3	9.45	20	EG	FM	9MP12	3	9.45	22	FM	CM
8HA8*	3	7.5	19	BG(FH)	ACEJ		3	9.45	20	BL	CM		3	9.45	22	AEF	BD
Tube damaged if C or J is moved.						9AQ8	1	9.45	18	AB	CD	9RA6*	3	9.45	22	AEF	AE
8JEB	2	7.5	20	BC	AE		1	9.45	18	FG	DH	9RAL1*	2	9.45	20	(BC)	EJ
	3	7.5	19	GHJ	EFJ	9AU7	2	4.7	25	FG	DEH		2	9.45	24	FG	EH
8JT8	3	7.5	18	GH	AE		2	4.7	25	AB	CDE	9U8	2	9.45	22	BCF	EG
	1	7.5	19	BC	EJ	9BJ11	3	9.45	18	BCDF	EM		2	9.45	22	AJ	EH
8JU8	3	7.5	22	GH	EH		3	9.45	18	GHJL	EM	9X8	2	9.45	20	GHJ	AEF
	3	7.5	22	G	CE	9BR7	2	5	21	G	DEH		2	9.45	21	BC	EF
	3	7.5	22	A	BE		2	5	21	F	DEH	No open element test on J.					
8JV8	3	9.45	18	GH	EFJ		2	5	18	AB	CDE	10	3	7.5	56	BC	D
	1	9.45	19	BC	AE	9CL8	2	9.45	22	AB	CD	10AF11	3	9.45	20	KL	BJM
8K11	2	7.5	23	JK	DM		2	9.45	22	FGJ	DH		2	9.45	21	FH	EM
	1	7.5	20	BL	CM	9DK3*	3	9.45	18	(BG)	DN		2	9.45	21	CD	GM
	1	7.5	20	EG	FM	9DZ8	1	9.45	20	AJ	EH	10AL11	3	9.45	20	HKL	JM
8KA8	3	9.45	19	FGHJ	CE		3	9.45	20	CFG	BE		1	9.45	19	CDFG	BM
	2	9.45	21	AB	CE	9EAS	2	9.45	20	BCF	EG	10BQ5	3	9.45	22	ABGJ	CD
8KR8	3	7.5	18	GHJ	EF		2	9.45	20	AJ	EH	10C8	2	9.45	24	FGH	EJ
	3	7.5	18	BC	AE	9ED4	1	7.5	26	HN	ABCEFGJ		1	9.45	22	AB	CE
8KS8	3	7.5	19	GH	EFJ	Tube damaged if ABCEFG or J is moved.						10CW5*	3	9.45	20	(AB)(FGH)J	CE
	1	7.5	20	BC	AE	9EF6	1	9.45	17	CDE	BH	A, F or H is not used in some tubes.					
8LC8	2	7.5	20	AB	CE	9GB8	2	9.45	22	FGH	EJ	10DE7	3	9.45	22	ABC	DJ
	2	7.5	20	FHJ	CEG		2	9.45	23	AB	CE		2	9.45	26	FG	DH
	2	7.5	20	FHJ	CEG	9GH8:	2	9.45	17	AJ	EH	10DR7	3	9.45	16	ABC	EJ
							2	9.45	17	BCF	EG		1	9.45	19	FG	EH
C should show short when tube is heated, Sec. 2.												10DX8	3	9.45	20	HJ	EFG
													2	9.45	20	AB	CE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
10E8	2	9.45	22	GHJ	EF	10L28	3	9.45	19	GH	EFJ	12A7	2	12.6	29	BCN	FG
	1	9.45	20	BC	AE		2	9.45	20	Bc	AE		1	12.6	20	E	DG
10EG7	2	9.45	21	AB	CG	10P18*	3	50	19	(AB)(GH)J	CE	12A8	2	12.6	28	CDN	GH
	1	9.45	21	DE	FG	10T10	3	9.45	19	HK	JLM		2	12.6	36	EF	GH
10EM7	1	9.45	20	DE	FH		1	9.45	21	CEFG	BM	12AB5*	3	12.6	30	(AH)(CF)J	EG
	3	9.45	19	AB	CH	10Y	3	7.5	42	BC	D	12AC6	1	12.6	21	ABEF	DG
10EW7	3	9.45	30	FG	EH	10Z10	3	9.45	20	BJL	CM	12AC10	3	12.6	20	BL	CM
	3	9.45	19	ABC	EJ		4	9.45	58	DEFG	GHM		3	12.6	20	EG	FM
10FD7*	1	9.45	21	FG	EH	11AR11	3	12.6	18	JK	GHLM		3	12.6	20	JK	DM
	3	9.45	18	A(BC)	EJ		3	12.6	18	CE	BDFM	12AD6	1	12.6	20	AIEFG	BC
10FR7*	3	7.5	19	A(BC)	EJ	11B8	1	9.45	20	CFG	BE		1	6.3	22	AB	CDE
	3	7.5	30	FG	EH		1	9.45	20	AJ	EH	12AD7	1	6.3	22	FG	DEH
10GF7	1	9.45	20	HJ	AE	11BN11	3	12.6	18	CDEF	BM		1	6.3	20	F	BC
	3	9.45	18	BF	CE		3	12.6	18	GHLK	HM	12AE6	1	12.6	40	E	BC
10GK6*	3	7.5	20	BGH	A(C)JE	11BQ11	3	12.6	18	BCDE	FM		1	12.6	22	AG	BC
10GN8	3	9.45	19	GH	EFJ		3	12.6	19	GHJK	LM	12AE7	1	6.3	19	AB	CDE
	1	9.45	19	BC	AE	11BT11	2	12.6	20	CJ	DM		1	6.3	19	FG	DEH
10GV8	2	9.45	21	AB	CE		2	12.6	20	EG	FM	12AE10	1	12.6	20	HKL	JM
	3	9.45	20	FGJ	EH		3	12.6	20	BKL	FHM		3	12.6	21	CEFG	BM
10HA8*	3	9.45	19	BG(FH)	ACEJ	11CA11	3	12.6	20	HKL	AJ	12AF3	4	12.6	18	BJ	EN
	Tube damaged if C or J is moved.						3	12.6	20	DF	AE	12AF6	1	12.6	20	ABEF	DG
10HF8	3	9.45	19	GH	EFJ		3	12.6	22	BC	AG	12AF11	3	12.6	20	KL	BJM
	1	9.45	19	BC	AE	11CF11	3	12.6	19	CDE	FM		2	12.6	21	FH	EM
10JA5*	3	9.45	21	(B)J(CK)F	DLM		3	12.6	23	BL	GM	12AH7	3	12.6	30	AC	GM
	Tube damaged if D or L is moved.						3	12.6	17	JK	HM		3	12.6	30	EF	DG
10JA8	3	9.45	19	GH	EFJ	11CH11	3	12.6	17	BKL	FHM	12AH8	2	6.3	20	ABFG	CDE
	2	9.45	20	BC	AE		2	12.6	20	EG	FM		2	6.3	23	GH	CDE
10JT8	3	9.45	18	GH	EFJ		2	12.6	20	CJ	EM	12AJ6	1	12.6	38	F	BC
	1	9.45	19	BC	AE	11CY7	3	9.45	20	ABC	DJ		1	12.6	38	E	BC
10JY8	3	12.6	18	GH	EFJ		1	9.45	21	FG	DH	12AJ7	3	12.6	22	ABFG	CE
	3	12.6	18	BC	AE	11DS5*	1	12.6	19	(AG)EF	BD		2	12.6	24	HJ	CE
10KR8	3	9.45	20	BC	AE	11FY7	1	12.6	21	KL	JM	12AL5	1	12.6	22	G	AD
	3	9.45	20	GHJ	EF		3	12.6	19	CE	GM		1	12.6	22	B	DE
10KU8	1	7.5	38	C	AE	11HM7*	3	5	17	B(C)JGH	ADE	12AL8	1	12.6	38	BF	CEG
	1	7.5	38	B	AE	11JE8	3	12.6	19	GHJ	EF		1	12.6	22	A	EJ
	3	7.5	17	GHJ	EF		2	12.6	20	BC	AE	12AL11	3	12.6	20	HKL	JM
10L14	2	25	21	FG	EH	11KV8	3	12.6	18	GHJ	EF		1	12.6	21	CDFG	BM
	2	25	21	AB	CE		2	12.6	20	BC	AE	12AQ5*	3	12.6	32	(AG)EF	BD
10LB8	3	9.45	18	GH	EFJ	11LQ8	3	9.45	18	BC	AE	12AS5	3	12.6	19	BEFG	AD
	2	9.45	25	BC	AE		3	9.45	18	GHJ	EF	12AT8	3	12.6	28	AG	BC
10LD6*	2	9.45	21	•	AD	11LT8	1	12.6	18	H	GE		1	12.6	35	F	BC
	•B(C)J(FH)G						1	12.6	18	F	GE		1	12.6	35	E	BC
10LE8	2	7.5	19	AHJ	BCE	11LY6*	3	9.45	19	BCJ	AE	12AT7	2	6.3	24	FG	HJ
	2	7.5	19	FHJ	CEG		3	9.45	19	B(C)JGH	AE		2	6.3	24	AB	CJ
10LM8	3	9.45	20	BCF	EG	11M88	3	9.45	20	FGJ	EH	12AU8	2	12.6	22	ABEF	DG
	3	9.45	21	AJ	EH		2	9.45	21	AB	CE	12AU7	2	6.3	25	FG	DEH
10LW8	1	9.45	19	BC	AE	11R3*	2	9.45	22	(B)J	DN		2	6.3	25	AB	CDE
	3	9.45	20	GHJ	EF	12A	2	5	26	BC	D	12AV5	3	12.6	18	AEH	BC
10LY8	3	9.45	18	GHJ	EF	12A4	2	6.3	20	BGJ	ADE						
	1	9.45	18	BC	AE	12A5	3	6.3	32	BCD	EF						
						12A6	3	12.6	32	CDE	GH						

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	
12AV6	1	12.6	43	F	BD	12BR7	2	6.3	23	G	DEH	12DL6	1	12.6	40	J	BE	
	1	12.6	43	E	BD		2	6.3	23	F	DEH		1	12.6	20	CFG	BE	
	1	12.6	21	AG	BD		2	6.3	21	AB	CDE		1	12.6	40	A	EH	
12AV7	2	6.3	21	FG	DEH	12BS3*	2	12.6	20	(BG)	EJ		1	12.6	40	J	EH	
	2	6.3	22	AB	CDE	12BT3	3	12.6	21	DK	GM	12DM4	3	12.6	22	E	CH	
12AW6	2	12.6	22	AEFG	BD	12BT6	1	12.6	22	AG	BC	12DQ6	3	12.6	23	DEN	GH	
No open element test on E.							1	12.6	29	E	BC	12DQ7	3	12.6	22	BCGHJ	AE	
12AX3	3	12.6	23	DK	GM		1	12.6	29	F	BC	12D57	1	12.6	40	J	EH	
12AX4	3	12.6	22	E	CG	12BV7*	3	6.3	20	BGH	A(CJ)DE		1	12.6	40	A	EH	
12AX7	1	6.3	20	FG	DEH	12BV11	2	12.6	20	BCDF	EM		1	12.6	20	CFG	EH	
	1	6.3	20	AB	CDE		2	12.6	20	GJKL	HM	12DT5	3	12.6	24	ACFJ	EG	
12AY3	3	12.6	22	BG	EJ	12BW4	4	12.6	20	G	EJ	12DT6	1	12.6	20	AEFG	BD	
J may show leakage.							4	12.6	20	A	EJ	12DT7	1	6.3	20	AB	CDE	
12AY7	1	6.3	22	FG	DEH	12BY7*	3	6.3	22	BGH	A(CJ)DE		1	6.3	20	FG	DEH	
	1	6.3	22	AB	CDE	No open element test on G.						12DT8	2	12.6	21	FG	EH	CE
12AZ7	1	6.3	20	FG	DEH	12E28	1	12.6	18	AEFG	BC		2	12.6	21	AB	CE	
	1	6.3	20	AB	CDE	No open element test on E & G.						12DV7	1	6.3	22	FG	DEH	DEH
12B4	2	6.3	21	BGJ	ADE	12BZ7	1	6.3	19	FG	DEH		1	6.3	67	B	ADE	
12B6	3	12.6	31	CN	GH		1	6.3	19	AB	CDE		1	6.3	67	C	ADE	
	1	12.6	58	D	GH	12C5	3	12.6	17	BEFG	AC	12DV8	1	12.6	20	CFG	BE	
	1	12.6	58	E	GH	12C8	1	12.6	38	D	GH		1	12.6	35	A	EH	
12B7	2	12.6	30	BCF	AH		1	12.6	38	E	GH		1	12.6	35	J	EH	
12B8	2	12.6	26	CDN	AG		3	12.6	41	CFN	GH	12DW4*	3	12.6	20	(BG)	EJ	
	3	12.6	26	EH	FG	12CA4	2	12.6	22	A	CD	12DW5	1	12.6	21	ACFJ	EG	
12BA6	2	12.6	22	ABEF	DG		2	12.6	22	G	CD	12DW7	1	6.3	20	FG	DEH	
12BA7	3	12.6	18	AB	CEFGJ	12CA5	3	12.6	22	BEFG	AC		2	6.3	24	AB	CDE	
	1	12.6	36	AFGJ	BCE	12CK3*	3	12.6	18	(BG)	EJ	12DY8	2	12.6	21	HJ	EG	
12BB14* 3	12.6	18	(AB)(FG)N	CEH		12CL3*	3	12.6	18	(BG)	EJ		2	12.6	20	ACF	BE	
Tube damaged if C or H is moved.						12CM6*	3	12.6	26	A(CF)J	EG	12DZ6	1	12.6	20	AF	BDG	
12BD6	2	12.6	27	ABEF	DG	12CN5*	2	12.6	42	FG	A(BE)C	12DZ7	3	12.6	22	ACD	GH	
12BE3	3	12.6	20	DK	GM	12CR6	3	12.6	30	EFG	AC		3	12.6	22	DEF	GH	
12BE5	2	12.6	24	EFG	BD		1	12.6	32	B	AC	No open element test on C & F.						
	2	12.6	24	A	BD	12CS6	1	12.6	20	AF	BC	12E5	3	12.6	30	CE	GH	
12BF6	2	12.6	34	AG	BD		1	12.6	26	EG	BC	12E13	3	6.3	21	CDE	GH	
	1	12.6	38	F	BD	12CT3*	3	12.6	18	(BF)	EJ	12EA6	1	12.6	20	AF	BDG	
	1	12.6	38	E	BD	12CT8	2	12.6	22	AB	CD	12E68	1	12.6	40	B	ACE	
12BF11	3	12.6	20	HKL	JM		2	12.6	22	FGH	DJ		1	12.6	57	FG	EHJ	
	1	12.6	20	CEFG	BM	12CU5	3	12.6	18	BEFG	AD	12ED5	3	12.6	20	BEFG	AD	
12BH7	2	6.3	21	FG	DEH	12CU6	3	12.6	23	DEN	GH	12EF6	4	12.6	18	CDE	GH	
	2	6.3	21	AB	CDE	12CX6	2	12.6	22	AEWBCG		12EG6	1	12.6	20	AEG	BD	
12BK5	2	12.6	22	ACGH	DF	12CX8	1	12.6	23	BEF	ACG		1	12.6	21	F	BD	
12BK6	1	12.6	24	AG	BC	12D4	3	12.6	21	E	CG	12EH5	3	12.6	20	BEFG	AD	
	1	12.6	32	E	BC	12DB5*	2	12.6	24	A(CF)J	(BG)D	12EK6	1	12.6	21	EF	DG	
	1	12.6	36	F	BC	12DF5	1	6.3	31	A	CJ		1	12.6	20	AB	DG	
12BL6	1	12.6	20	AEF	BDG		1	6.3	31	F	HJ	12EL6	1	12.6	20	AB	DG	
Good tube reads above 30.						12DJ6	2	12.6	20	AB	CE		1	12.6	45	E	DG	
12BN6	1	12.6	36	BEFG	AC		2	12.6	20	FG	EH		1	12.6	45	F	DG	
Good tube reads above 30.						12DK6	3	12.6	22	AEF	BCG	12EM6	1	12.6	19	ACF	BE	
12BQ6	3	12.6	22	DEN	GH	12DK7	1	12.6	20	CG	BE		1	12.6	38	J	BE	
12BR3*	4	12.6	18	(BJ)	EN		1	12.6	30	F	BE	12EN6	1	12.6	19	CDE	GH	

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
12EQ7	2	12.6	22	ABFG	CE	12HLS*	3	12.6	18	(AB)GJ	CE	12RLL5	2	12.6	23	FG	EH
	1	12.6	34	H	CE	12HL7*	3	6.3	18	BGH(CJ)	ADE		2	12.6	23	AB	CE
Good tube reads above 25.						12HU8	3	12.6	21	FHJ	EG	12S8	1	12.6	27	FN	BH
12EZ5	1	12.6	18	AF	BDEG		3	12.6	21	ABC	EG		1	12.6	34	D	BH
	1	12.6	24	BE	DG	12J5	2	12.6	24	CE	GH		1	12.6	37	A	BH
12F5	1	12.6	22	DN	GH	12J7	1	12.6	20	CDN	EGH	12SA7	1	12.6	39	C	EH
12F8	1	12.6	37	F	DG	12J8	1	12.6	20	J	DG		2	12.6	35	GH	FG
	1	12.6	37	A	DG		1	12.6	20	H	DG		2	12.6	25	DE	FG
	1	12.6	21	BCH	DGJ		1	12.6	20	ACF	BD	128C7	1	12.6	20	BC	FG
12FK6	1	12.6	40	F	BD	12J86*	3	12.6	19	(AG)(BF)HNCE			1	12.6	20	DE	FG
	1	12.6	40	E	BD	12JF5*	3	12.6	20	B(CL)N	DKM	128F5	1	12.6	20	CE	BG
	1	12.6	20	AG	BD	Tube damaged if D or K is moved.						128F7	1	12.6	40	E	CG
12FM6	1	12.6	55	G	ABD	12JM6	3	12.6	20	CGL	BDKM		3	12.6	30	BDF	CG
	1	12.6	38	F	BD	Tube damaged if D or K is moved.						128G7*	3	12.6	19	DFH	(CE)G
	1	12.6	38	E	BD	12JN6	3	12.6	20	CGL	BDKM	128H7*	3	12.6	19	DFH	(CE)G
12FQ7	2	12.6	23	FG	EH	Tube damaged if D or K is moved.						128J7	1	12.6	20	DFH	CEG
	2	12.6	23	AB	CE	12JN8	3	12.6	20	GJ	EFH	128K7	3	12.6	28	CDFH	EG
12FQ8	1	12.6	20	BC	AIEFGHJ		3	12.6	19	AB	CE	128L7	3	12.6	28	DE	FG
	1	12.6	20	AB	CEFGHJ	12JQ6*	1	12.6	23	F	DJ		3	12.6	28	AB	CG
	1	12.6	20	FG	ABCEHJ		3	12.6	20	A(BC)(GH)	DJ	128N7	2	12.6	29	DE	FG
	1	12.6	20	GH	ABCEFJ	12SJ6*	3	12.6	18	(CL)(EJ)N	BDKM		2	12.6	29	AB	CG
12FR8	1	12.6	18	CFG	E	Tube damaged if D or K is moved.						12SQ7	1	12.6	50	E	CG
	1	12.6	20	AJ	BE	12JT6*	3	12.6	20	(AG)BFJ	CE		1	12.6	50	D	CG
	1	12.6	44	H	BE	12K5	1	12.6	20	BEFG	AD	12SR7	3	12.6	27	BF	CG
12FV7	3	6.3	19	FG	HJ	12K7	3	12.6	34	CDN	EGH		1	12.6	36	E	CG
	3	6.3	19	AB	CJ	12K8	1	12.6	22	EF	GH	12SW7	1	12.6	48	D	CG
12FX5*	2	12.6	20	(BE)FG	AD	12KG6*	4	12.6	21	•	EJ		1	12.6	26	BF	CG
12FX8	1	12.6	25	CJ	EG	•(AH)(BG)(CF)N							1	12.6	43	D	CG
	1	12.6	19	FH	E	12KL8	1	12.6	48	H	CE	128X7	2	12.6	25	DE	FH
	1	12.6	19	AB	EG		2	12.6	20	ABFG	CE		2	12.6	25	AB	CH
12G11	1	12.6	20	CDFG	BM	12L6	3	12.6	22	CDE	GH	12SY7	2	12.6	32	ACH	FG
	3	12.6	20	HKL	JM	12LQ8	3	12.6	20	CDE	BG		2	12.6	26	DE	FG
12GB3	3	12.6	19	DE	GH	12MD8	2	12.6	20	AJ	EG	12T10	3	12.6	19	HK	JLM
12GB7	3	12.6	18	DEN	GH		2	12.6	20	BH	EG		1	12.6	20	CEFG	BM
12GC6	3	12.6	20	DEHN	CG	12ML8	2	12.6	20	CF	EG	12U7	1	6.3	25	AB	CDE
12GE5*	3	12.6	19	B(CL)G	(DK)M		2	12.6	20	BH	EG		1	6.3	25	FG	DEH
12GJ5*	3	12.6	20	(AG)(BF)N	CE	12ML8	2	12.6	20	CF	EG	12V6	3	12.6	27	CDE	GH
12GK17	3	12.6	22	E	CG		2	12.6	20	BH	EG	12W6	3	12.6	21	CDE	GH
12GN7*	3	6.3	17	BH(CJ)	ADEG	12MX8	3	12.6	20	AJ	EG	12X4	1	12.6	21	F	DG
12GT5*	3	12.6	19	(AG)(BF)J	CE		1	12.6	28	BFG	HJ	AE	1	12.6	21	A	DG
12GV5*	3	12.6	19	(CL)G(EJ)N	DKM	12Q7	1	12.6	20	CN	GH		3	12.6	25	B	CD
Tube damaged if D or K is moved.							1	12.6	40	D	GH	13CM5*	3	12.6	19	(AD)EN	CHG
12GW6	3	12.6	20	DEN	GH		1	12.6	40	E	GH	Tube damaged if C or H is moved.					
12H6	1	12.6	25	C	DG	12R5	3	12.6	28	BEFG	AC	13CW4	1	12.6	18	BD	HM
	1	12.6	25	E	GH	12RK19*	3	12.6	20	(BJ)	EN	13DE7	1	12.6	20	FG	EH
12HB25*	3	12.6	19	•	EJ	12RLL3	2	6.3	22	AB	CDE		3	12.6	18	ABC	EJ
	•(AB)(CH)(FG)N						2	6.3	21	FG	DEH	13DR7	3	12.6	18	ABC	EJ
12HE7	3	6.3	18	EJL	HK								1	12.6	19	FG	EH
	1	6.3	19	B	DK												
12HG7*	3	6.3	18	B(CJ)GH	AE												

Tube	Type	Flt.	Plate	Top (T)	Bottom (B)	Tube	Type	Flt.	Plate	Top (T)	Bottom (B)	Tube	Type	Flt.	Plate	Top (T)	Bottom (B)
13EM7	1	12.6	22	DE	FH	14GT8	1	12.6	20	HJ	EG	15HA6*	3	12.6	19	CE	GM
	3	12.6	19	AB	CH		1	12.6	20	F	AE	15HA6*	3	12.6	19	BG(FH)	ACEJ
13FD7*	3	12.6	18	A(BC)	EJ		1	12.6	20	B	CE	Tube damaged if C or J is moved.					
	1	12.6	21	FG	EH	14GW8	3	12.6	20	CFH	EG	15HB6*	3	12.6	18	B(FH)	AE
13FM7*	1	12.6	20	KL	JM		1	12.6	20	AJ	BE		1	12.6	24	(C,J)G	AE
	3	12.6	19	(CH)E	GM	14H7	2	12.6	22	BCF	DGH	15KY8	1	12.6	28	HJ	AE
13FR7	3	12.6	19	ABC	EJ	14J7	2	12.6	32	CDE	FGH		3	12.6	20	BFG	CE
	3	12.6	30	FG	EH		3	12.6	33	BEF	GH	15LE8	2	12.6	19	AHJ	BCE
13GB5*	3	12.6	19	(AB)(FG)N	CEH	14JG8	2	12.6	23	HJ	EG		2	12.6	19	FHJ	CEG
Tube damaged if C or H is moved.							1	12.6	19	F	AE	15MF8*	3	12.6	19	D(FG)H	JM
13GC8	2	12.6	21	AB	CE		1	12.6	19	B	CE		1	12.6	19	BK	LM
	2	12.6	21	FHJ	EG	14N7	2	12.6	26	CD	BH	15MX8	1	12.6	28	HJ	AE
13GF7	3	12.6	18	BF	CE		2	12.6	26	EF	GH		3	12.6	20	BFG	CE
	1	12.6	20	HJ	AE	14Q7	2	12.6	25	CD	GH	16A	1	6.3	22	AEG	BD
13J10	3	12.6	20	BJL	CM		2	12.6	30	BEF	GH	16A5	3	12.6	18	BGJ	CD
	4	12.6	68	DEFG	HM	14R7	1	12.6	18	BEF	GH	16A8	2	12.6	20	CFG	BE
13JZ8*	3	12.6	20	D(FG)H	JM		1	12.6	50	C	GH	16AK9	3	7.5	26	AJ	EH
	1	12.6	21	BK	LM		1	12.6	50	D	GH		3	7.5	21	EHJ	FG
13V10	2	12.6	24	CFG	BEM	14S7	2	12.6	28	CD	GH		3	7.5	22	KL	FG
	3	12.6	23	HKL	JM		2	12.6	24	BEF	GH		3	7.5	30	BC	FG
13Z10	3	12.6	20	BJL	CM	14V7	3	12.6	18	BCF	DGH	16AQ3	3	19.6	20	ABCFGHJ	EN
	4	12.6	68	DEFG	HM	14W7*	2	12.6	22	BCF	(DG)EH	No element test on top levers.					
14	2	12.6	30	BCN	DE	14X7	1	12.6	20	BC	DGH	16BQ11	3	12.6	18	BCDE	FM
14A4	2	12.6	26	BF	GH		1	12.6	20	E	DGH		3	12.6	19	GHJK	LM
14A5	3	12.6	33	BCF	GH		2	12.6	24	F	DGH	16BX11	2	12.6	21	GH	JM
14A7	2	12.6	30	BCDF	GH	Good tube reads above 30.							2	12.6	20	EF	DM
14AF7	3	12.6	25	EF	BCDGH	14Y4	3	12.6	28	C	GH		2	12.6	20	BC	KLM
	3	12.6	25	CD	BEFGH		3	12.6	28	F	GH	16CB28*	3	12.6	18	*	AB
14B6*	1	12.6	20	BC	(DG)H	14Z3	3	12.6	25	B	CD	*(CL)(DK)(EJ)N					
	1	12.6	40	E	(DG)H	15	2	2	36	BCN	DE	16GK6*	2	19.6	20	BGH	A(C)JE
14B8	2	12.6	34	CD	(DG)H	15A6	1	12.6	20	ABFG	CE	16GY5*	3	12.6	18	C(EJ)GLN	(DK)M
	2	12.6	30	BEF	(DG)H	15A8	2	12.6	24	DEN	BF	16HB5*	3	12.6	18	B(CL)G	DKM
14BL11	2	12.6	20	CJ	GH		2	12.6	27	CH	AB	Tube damaged if D or K is moved.					
	2	12.6	20	EG	FM	15AF11	3	12.6	20	KL	BJM	16KA6*	3	12.6	19	C(DL)EN	KM
14BR11	2	12.6	20	BKL	HM		2	12.6	21	FH	EM	16KH8	3	12.6	24	AB	DG
	2	12.6	20	BCL	DM		2	12.6	21	CD	GM		3	12.6	20	BCJ	DG
	2	12.6	20	FH	EM	15BD11	3	12.6	20	KL	BJM		3	12.6	20	FHJ	DG
	2	12.6	20	JK	GM		2	12.6	21	CD	GM	16LD6*	2	12.6	21	B(CJ)(FH)GAD	
14C5	3	12.6	25	BCF	GH	15CW5*	3	12.6	20	(AB)(FG)J	CE	16LUS*	1	12.6	19	BK	LM
14C7	2	12.6	28	BCF	DGH	A, F or H is not used in some tubes.							3	12.6	19	D(FG)H	JM
14E8*	3	12.6	31	BC	(DG)H	15DQ8	2	12.6	20	AB	CE	16MY8*	3	12.6	19	D(FG)H	JM
	1	12.6	65	E	(DG)H		3	12.6	20	FHJ	EG		1	12.6	19	BK	LM
	1	12.6	65	F	(DG)H	15EA7	1	12.6	20	DE	FH	17	3	12.6	40	BC	DE
14E7	2	12.6	28	BEF	GH		3	12.6	19	AB	CH	17A8	2	12.6	20	BCF	EG
	1	12.6	58	C	GH	15EW6	2	12.6	20	AEFG	BD		2	12.6	18	AJ	EH
	1	12.6	58	D	GH	15EW7	3	12.6	19	A(BC)	EJ	17AB10	4	19.6	55	DEFG	HM
14F7	1	12.6	20	CD	BH		3	12.6	30	FG	EH		3	19.6	19	BJL	CM
	1	12.6	20	EF	GH	15FM7*	3	12.6	19	(CH)E	GM	17AV5	3	12.6	24	AEH	BC
14F8	3	12.6	22	AC	DG		1	12.6	20	KL	JM	17AX3	3	19.6	23	DK	GM
	3	12.6	22	FH	EG	15FY7	1	12.6	21	KL	JM	17AX4	3	12.6	28	E	CH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
17AY3	3	19.6	21	BG	EJ	17JZ8*	3	19.6	19	D(FG)H	JM	19CG3*	3	19.6	18	(DK)	GM
J may show leakage.												19CL8	2	19.6	21	FGJ	DH
17BB14*	3	12.6	18	(AB)(FG)N	CEH	17KV6*	3	12.6	18	(AG)BFJ	CE		2	19.6	21	AB	CD
Tube damaged if C or H is moved.						17L6	3	12.6	24	CDE	GH	19DC8	1	19.6	36	H	CE
17BE3	3	19.6	20	DK	GM	17LD6	1	12.6	28	HJ	AE		1	19.6	36	G	CE
17BF11	3	19.6	20	HKL	JM		3	12.6	20	BFG	CE		2	19.6	22	ABFJ	CE
	1	19.6	20	CEFG	BM	17R5	3	12.6	24	BEFG	AC	19DE3*	3	19.6	18	(DK)	MN
17BH3*	3	12.6	22	(BG)	EJ	17RHM2	2	19.6	20	AB	CD	19DE7	2	19.6	26	FG	DH
17BQ8	3	12.6	21	DEN	GH		2	19.6	20	FG	DH		3	19.6	22	A(BC)	DJ
17BR3*	4	19.6	18	(BJ)	EN	17RK19*	4	19.6	18	(BJ)	EN	19DK3*	3	19.6	18	(BG)	DN
17BS3*	2	12.6	20	(BG)	EJ	17X10	4	19.6	55	DEFG	HM	19DQ3*	3	19.6	18	(DK)	GM
17BW3*	4	12.6	21	(DK)	GM		3	19.6	19	BJL	CM	19EA8	2	19.6	20	BCF	EG
17BZ3*	3	12.6	20	(DK)	GM	17Z3	4	12.6	18	BJ	DN		2	19.6	20	AJ	EH
17C5*	3	12.6	24	(BE)FG	AC	18	3	12.6	31	BCD	EF	19E28	1	19.6	20	HJ	D
17C9	2	19.6	20	GHJ	EF	18A5	2	12.6	24	AEH	CG		1	19.6	20	FG	D
	2	19.6	20	ABC	EK	18AJ10	3	19.6	22	HKL	JM		1	19.6	20	BC	AD
17CA5	3	12.6	22	BEFG	AD		1	19.6	20	CEFG	BM	19FL8	2	19.6	22	ABFJ	CE
17CK3*	3	12.6	18	(BG)	EJ	18DZ8	1	19.6	20	AJ	EH		1	19.6	42	G	CE
17CL3*	3	12.6	18	(BG)	EJ		3	19.6	20	CFG	BE		1	19.6	42	H	CE
17CT3*	3	19.6	18	(BF)	EJ	18FW6	2	19.6	21	ABEF	DG	18FX5*	2	19.6	20	(BE)FG	AD
17CU5	3	12.6	19	BEFG	AD	18FX6	2	19.6	25	EFG	BD	19GQ7	1	19.6	20	B	AE
17D4	3	12.6	21	E	CG		2	19.6	22	AFG	BD		1	19.6	20	H	EJ
17DE4	3	19.6	22	E	CH	18FY6	1	19.6	50	F	BD		1	19.6	20	F	EG
17DM4	3	19.6	21	E	CH		1	19.6	50	E	BD	19HR8	3	19.6	18	ABEF	DG
17DQ6	3	12.6	24	DEN	GH		1	19.6	20	AG	BD	19HS6	1	19.6	21	BEF	DG
17DW4*	3	12.6	20	(BG)	EJ	18GB5*	3	19.6	19	(AB)(FG)N	CEH		1	19.6	19	A	DG
17EW8	2	19.6	20	FG	DH	Tube damaged if C or H is moved.						19HV8	2	19.6	21	GJ	EFH
	2	19.6	20	AB	CD	18GD6	2	19.6	20	ABEF	DG		1	19.6	21	AB	CE
17GE5*	3	19.6	19	B(CL)G	(DK)M	18GV5*	3	19.6	19	(CGL)(EJ)N	DKM	19J6	2	19.6	24	BE	CG
17GJ5*	3	19.6	20	(AG)(BF)N	CE	Tube damaged if D or K is moved.							2	19.6	24	AF	CG
17GT5*	3	19.6	19	(AG)(BF)J	CE	18GV8	3	19.6	20	FGJ	EH	19JC6	2	19.6	19	BGHJ	ACE
17GV5*	3	19.6	19	CGL(EJ)N	(DK)M		2	19.6	21	AB	CE	Tube damaged if A or C is moved.					
17GW8	3	19.6	20	DEN	GH	18HB8	1	19.6	20	AC	BE	19JN8	3	19.6	19	FGJ	EH
17H3	3	12.6	28	CH	AE		3	19.6	22	FGJ	EH	No open element test on F.					
17HB25*	3	19.6	19	•	EJ	18J6	1	19.6	23	AF	BDEG		2	19.6	20	AB	CE
•(AB)(CH)(FG)N							1	19.6	23	BE	ADFG	19KF6*	3	19.6	19	(AG)BFJ	CE
17HC8	3	19.6	23	CFG	BE	18RAL1*	2	19.6	20	(BC)	EJ	19KG8	3	19.6	19	GJ	EFH
	3	19.6	26	AJ	EH		2	19.6	24	FG	EH		3	19.6	19	BA	CE
17JB6*	3	19.6	19	(AG)(BF)HNCE	CE	19	3	2	37	BC	F	19MR9	2	19.6	20	ABEF	DG
17JF6*	3	12.6	18	(AG)(BF)HNCE	CE		3	2	39	DE	F	19Q9	3	19.6	19	AB	CEK
17JG6*	3	12.6	18	(AG)BJ	CEF	19A3	3	7.5	21	E	FG		3	19.6	19	HJ	EG
17JM6	3	12.6	20	CEN	BDKM	19AJ8	2	19.6	22	ABFG	CE	19T8	1	19.6	21	HJ	CEG
Tube damaged if D or K is moved.						19AQ5*	3	19.6	27	(AG)EF	BD		1	19.6	20	F	CEG
17JN6	3	12.6	20	CGL	BDKM	19AU4	4	19.6	22	E	CH		1	19.6	20	B	CEG
Tube damaged if D or K is moved.						19BG6	3	19.6	26	EHN	CG	19U3	3	19.6	21	J	CD
17JQ6*	1	12.6	23	F	DJ	19C8	1	19.6	19	A	EG		1	19.6	19	B	CE
	3	12.6	20	A(BC)(GH)	DJ		1	19.6	19	F	EG		1	19.6	19	G	EH
17JR8*	3	19.6	18	(AG)BJ	CEF		1	19.6	20	HJ	EG		1	19.6	22	AF	CE
17JT8*	3	12.6	20	(AG)BFJ	CE		1	19.6	20	B	CE		1	19.6	36	J	CE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
19W3	3	19.6	21	J	CD	22BW3*	4	19.6	21	(DK)	GM	25CM3*	3	25	17	(BG)	EJ
19X3	3	19.6	18	J	CD	22DE4	3	25	22	E	CH	25CT3*	3	25	18	(VF)	EJ
19X8	2	19.6	22	BC	DF	22JF6*	3	19.6	18	(AG)(BF)HNCE		25CU6	3	25	23	DEN	GH
	2	19.6	21	AGHJ	DF	22JG6*	3	25	18	(AG)BJ	CEF	25D8	2	25	26	EF	AG
19Y3*	3	19.6	20	(AGJ)	CE	22JR6*	3	25	18	(AG)BJ	CEF		2	25	26	CDN	AG
20	2	6.3	48	BC	D	22JU6*	3	19.6	17	(AG)(BF)HNCE			1	25	22	H	AG
20AQ3	3	19.6	20	ABCFGHJ	EN	22KM6*	3	25	18	(AG)(BF)HNCE		25DK3*	3	25	18	(BG)	DN
No element test on top levers.						22KV6*	3	19.6	18	(AG)BFJ	CE	25DK4	4	25	26	E	CG
20D4	2	6.3	22	ABFG	CE	22J86*	3	25	18	(CL)(EJ)N	BDKM	25DL3*	3	25	18	(BG)	DN
	2	6.3	23	HJ	CE	Tube damaged if D or K is moved.						25DN6	3	25	17	EHN	CG
20EQ7	1	19.6	34	H	CE	23MB6	3	25	18	(CL)(EJ)N	BDKM	25DQ6	3	25	24	DEN	GH
Good tube reads above 25.						Tube damaged if D or K is moved.						25DT5	3	25	22	ACFJ	EG
	2	19.6	22	ABFG	CE	23Z9	<b>IMPORTANT</b> = Due to several different filament center tap arrangements, data for this tube has been discontinued. Attempts at testing may cause filament burnout on some tubes. Therefore, we recommend direct substitution as the only safe test.					25E5*	3	25	18	(AD)JEN	CGH
20EW7*	3	19.6	30	FG	EH							Tube damaged if C or H is moved.					
	3	19.6	19	A(BC)	EJ	24A	2	2.5	32	BCN	DE	25EC6	3	25	20	EHN	BC
20EZ7	1	9.45	20	GH	CJ	24AX4	3	25	20	E	CH	25EH5	3	25	20	BEFG	AD
	1	9.45	20	EF	CD	24BF11	3	25	20	HKL	JM	25F6	2	25	22	BEFG	AD
20J8	1	19.6	19	CDEN	GH		1	25	20	CEFG	BM	25GB6	3	25	21	DEK	GH
	1	19.6	20	EF	GH	24GA7*	3	25	20	(BC)DG	EM	25GF6	3	25	18	DEN	GH
20LF6*	3	19.6	18	*	BM		3	25	24	L	HM	25HX6*	3	25	18	(AG)FJ	8CE
	*(CL)(DK)(EJ)N					24J6*	3	25	19	(AG)(BF)HNCE		Tube damaged if B or C is moved.					
21A6	3	19.6	16	ABFGHJN	CE	24JZ6*	3	25	19	D(FG)H	JM	25JG6*	3	25	20	A(BC)(GH)	DJ
No open element test on N.							1	25	20	BK	LM		1	25	23	F	DJ
21EX6	3	19.6	16	EHN	CG	24LQ6*	3	25	17	(AG)(BF)HNCE		25JZ8*	3	25	19	D(FG)H	JM
21GY5*	3	19.6	18	(CGL)(EJ)N	(DK)M	24LZ6*	3	25	19	(AG)(BF)HNCE			1	25	20	BK	LM
21HA6*	3	25	19	BG(FH)	ACEJ	25A6	3	25	27	CDE	GH	25KA6*	3	25	19	C(DL)EN	KM
Tube damaged if C or J is moved.						25A7	3	25	27	CDE	GH	25L6	3	25	22	CDE	GH
21HB5*	3	19.6	18	B(CL)G	(DK)M		3	25	23	F	AG	25MP20	3	25	20	AEF	BD
21HD5*	3	19.6	19	(CL)(EJ)G	DKM	25AC5	3	25	31	CE	GH	25N6	2	25	30	CDE	GH
Tube damaged if D or K is moved.						25AV5	3	25	18	AEH	BC	25RK19*	4	25	18	(BJ)	EN
21HJ5*	3	19.6	18	(CL)(EJ)G	BDKM	25AX4	3	25	20	E	CH	25W4	3	25	18	E	CG
Tube damaged if D or K is moved.						25B5	3	25	37	BD	EF	25W6	3	25	17	CDE	BH
21J86*	3	25	19	(CL)(EJ)N	BDKM		3	25	46	CD	BEF	25X6	3	25	27	C	DG
Tube damaged if D or K is moved.						25B6	3	25	23	CDE	GH		3	25	27	E	GH
21JV6*	3	19.6	18	(DK)CGL	BM	25B8	2	25	25	CDN	AG	25Y4	3	25	25	E	GH
21JZ6*	3	19.6	18	(DK)CEN	BM		2	25	25	EH	FG	25Y5	3	25	30	B	CF
21KA6*	3	19.6	19	C(DL)EN	KM	25BB14*	3	25	18	(AB)(FG)N	CEH		3	25	30	E	DF
21KQ6*	3	19.6	19	*	EJ	Tube damaged if C or H is moved.						25Z5	3	25	25	B	CF
*(AH)(BG)(CF)N						25BK5	2	25	21	ACGH	DF	25Z6	3	25	24	C	DF
21LG6*	3	19.6	20	(CL)(EJ)N	DKM	25BQ6	2	25	21	DEN	GH		2	25	24	E	DG
Tube damaged if D or K is moved.						25C5	2	25	20	BEFG	AD	26	2	1.4	38	BC	D
21LR6	3	19.6	19	BFG	CE	25C6	3	25	25	CDE	GH	26A6	2	2.5	22	ABEF	DG
	1	19.6	19	HJ	AE	25CA5	3	25	17	BEFG	AD	26A7	2	25	20	CDE	BG
21LU6*	3	19.6	19	D(FG)H	JM	25CD6	3	25	20	EHN	BC		2	25	20	AEH	BG
	1	19.6	19	BK	LM	25CG3*	3	25	18	(DK)	GM	26AG6	2	25	21	FG	EH
21MY6*	3	19.6	19	D(FG)H	JM								2	25	21	AB	CE
	1	19.6	19	BK	LM	25CK3*	3	25	18	(BG)	EJ	26C8	3	25	30	AG	BDEF
22	1	2.5	56	BCN	D								1	25	36	E	ABDFG
22BH3	3	25	22	BG	EJ								1	25	36	F	ABDEG

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	
26D6	2	25	22	AF	BCED	30CW5*	3	32	20	•	CE	34	2	2	40	BCN	D	
	1	25	40	EFG	ABC							34CD3*	3	32	18	(DK)	GM	
26D6*	1	25	19	(AE)(DH)N	CFG							34CE3*	1	32	18	(DK)	GM	
Tube damaged if C or F is moved.												34CM3*	3	32	17	(BG)	EJ	
26D06	3	25	22	DEN	GH							34DK3*	3	32	18	(BG)	DN	
26HU5*	3	25	19	(AE)CN	BFH							34GD5	3	32	21	BEFG	AD	
Tube damaged if B or F is moved.												34R3*	3	32	20	(BJ)	DN	
26LW6*	3	25	17	(AE)CN	BFG							35(51)	2	2.5	30	BCN	DE	
Tube damaged if B or F is moved.												35A5	3	32	22	BCF	GH	
26LX6*	3	25	18	(CL)(E)N	BDKM							35B5	3	32	23	AIEFG	BD	
Tube damaged if D or K is moved.												35C5	3	32	24	BEFG	AC	
26Z5	4	25	18	F	HJ							35CD6	3	32	17	EHN	BC	
	4	25	18	A	CJ							35DZ8	3	32	20	CFG	BE	
27	2	2.5	32	BC	DE							35EH5	3	32	20	AJ	EH	
27GB5*	3	25	19	(AB)(FG)N	CEH							35EHS	3	32	20	BEFG	AD	
Tube damaged if C or H is moved.												35GL6	2	32	22	BEG	AD	
27KG6*	4	25	21	•	EJ							A normally shows leakage.						
					•(AH)(BG)(CF)N							35HB8	1	32	20	AC	BE	
27LF6*	3	25	18	•	BM							35H8	3	32	22	FGJ	EH	
					•(CL)(DK)(E)N							35L6	3	32	20	CDE	GH	
28D7	2	25	22	BCD	FH							35LR6*	3	32	17	(CL)(E)N	BDKM	
	2	25	22	CEG	FH							Tube damaged if D or K is moved.						
28EC4*	3	25	19	(BGH)	EN							35W4	3	32	20	E	DFG	
28GB5*	3	25	19	(AB)(FG)N	CEH							35Y4	3	32	23	B	GH	
Tube damaged if C or H is moved.												35Z3	3	32	22	B	GH	
28HA6*	3	25	19	BG(FH)	ACEJ							35Z4	3	32	20	E	GH	
Tube damaged if C or J is moved.												35Z5	3	32	21	E	GH	
28HD5*	3	25	19	(CL)(E)JG	DKM							35Z6	3	32	20	C	DG	
Tube damaged if D or K is moved.												36	2	6.3	32	E	GH	
28Z5	3	12.6	36	C	GH							36	2	6.3	32	BCN	DE	
	3	12.6	36	F	GH							36AMS	4	32	22	E	CG	
29	2	2.5	36	BC	DEF							36KD6*	3	32	18	•	BM	
29GK6*	2	25	20	BGH	A(C)JE													
Tube damaged if C or J is moved.																		
29KG6*	3	30	19	•EJ														
					•(AH)(BG)(CF)N													
29LE6*	3	25	19	•	DJ													
					•(AH)(BF)(CF)													
30	2	2	35	BC	D													
30A5	3	32	16	BEFG	AC													
30AE3	3	32	20	ABCFGHJ	EN													
No element test on top levers.																		
30AG11	1	25	20	C	BM													
	1	25	20	K	LM													
	2	25	20	EF	DM													
	2	25	20	GH	JM													
30C18	3	7.5	17	BCG	EFH													
	3	7.5	22	AJ	EFH													
Tube damaged if F or H is moved.																		
30CW5*	3	32	20	•	CE													
					•(AB)(F,J)(GH)													
A, F or H is not used in some tubes.																		
30HD5*	3	25	19	(CL)(E)JG	DKM													
Tube damaged if D or K is moved.																		
30HJ5*	3	32	18	(CL)(E)JG	BDKM													
Tube damaged if D or K is moved.																		
30JZ6*	3	32	18	(DK)CEN	BM													
30KD6*	3	25	17	•	BM													
					•(CL)(DK)(E)N													
30KG6*	4	25	21	•	EJ													
					•(AH)(BG)(CF)													
30LE3	3	32	17	(AE)CN	BFG													
Tube damaged if B or F is moved.																		
30MB6*	3	32	18	(CL)(E)JN	BDKM													
Tube damaged if D or K is moved.																		
30MP23*	3	32	20	(BE)FG	AC													
30MP27*	3	32	20	(BE)FG	AC													
30PL12	3	12.6	26	AJ	EH													
	2	12.6	20	CFG	BE													
31	2	2	40	BC	D													
31AL10	2	12.6	24	BC	FG													
	2	12.6	21	DEH	FG													
	3	12.6	23	JL	FK													
31JS6*	3	32	18	(CL)(E)JN	BDKM													
Tube damaged if D or K is moved.																		
31LQ6*	3	32	17	(AG)(BF)HNCE														
31LR8	3	32	19	BFG	CE													
	1	32	19	HJ	AE													
31LZ6*	3	32	19	(AG)(BF)N	CE													
32	2	2	42	BCN	D													
32A8	1	32	20	CFG	BE													
	1	32	20	AJ	EH													
32ET5*	3	32	25	(BE)FG	AD													
32GA7*	3	32	20	(BC)DG	EM													
	3	32	24	L	HM													
32HQ7	3	19.6	20	EJL	AHM													
	1	19.6	20	B	ADM													
32L7	3	32	21	CDE	GH													
	3	32	18	F	AG													
33	3	2	39	BCD	E													
33GT7*	3	12.6	20	E(J)LK	AHM													
	3	12.6	21	B	ADM													
33GY7*	3	12.6	19	E(J)K	AHM													
	3	12.6	21	B	ADM													
33HE7	3	32	18	EJL	HM													
	1	32	19	B	DM													
33JR6*	3	32	18	(AG)BJ	CEF													
33JV6*	3	32	18	(DK)CGL	BM													
34	2	2	40	BCN	D													
34CD3*	3	32	18	(DK)	GM													
34CE3*	1	32	18	(DK)	GM													
34CM3*	3	32	17	(BG)	EJ													
34DK3*	3	32	18	(BG)	DN													
34GD5	3	32	21	BEFG	AD													
34R3*	3	32	20	(BJ)	DN													
35(51)	2	2.5	30	BCN	DE													
35A5	3	32	22	BCF	GH													
35B5	3	32	23	AIEFG	BD													
35C5	3	32	24	BEFG	AC													
35CD6	3	32	17	EHN	BC													
35DZ8	3	32	20	CFG	BE													
	1	32	20	AJ	EH													
35EH5	3	32	20	BEFG	AD													
35GL6	2	32	22	BEG	AD													
A normally shows leakage.																		
35HB8	1	32	20	AC	BE													
	3	32	22	FGJ	EH													
35L6	3	32	20	CDE	GH													
35LR6*	3	32	17	(CL)(E)N	BDKM													
Tube damaged if D or K is moved.																		
35W4	3	32	20	E	DFG													
35Y4	3	32	23	B	GH													
35Z3	3	32	22	B	GH													
35Z4	3	32	20	E	GH													
35Z5	3	32	21	E	GH													
35Z6	3	32	20	C	DG													
	3	32	20	E	GH													
36	2	6.3	32	BCN	DE													
36AMS	4	32	22	E	CG		</											

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
40Z5	3	32	20	E	BCH	53HK7	3	25	18	EJL	HK	88M	3	6.3	31	CDN	EGH
(45Z5)							1	25	18	B	DK	88S	3	6.3	32	BCN	DEF
41	3	6.3	32	BCD	EF	55	2	2.5	32	BN	EF	89	3	6.3	32	BCN	EF
42	3	6.3	29	BCD	EF		1	2.5	49	C	EF	89RS	3	6.3	36	BN	CEG
42EC4*	3	32	19	(BGH)	EN		1	2.5	40	D	EF		1	6.3	24	D	CG
42KN6*	3	19.6	17	•	BG	56	2	2.5	30	BC	DE		1	6.3	24	F	CG
						57	2	2.5	30	BCN	DEF	95	3	2.5	36	BCD	EF
												96	3	6.3	26	B	DE
43	3	25	31	BCD	EF	57A(AS)	3	6.3	34	BCN	DEF		3	6.3	26	C	DE
45	3	2.5	32	BC	D	58	3	2.5	35	BCN	DEF	99	2	2.5	65	BC	D
45B5*	3	50	19	(AB)(GH)J	CE	58AS	3	6.3	35	BCN	DEF	(99OX99)					
45Z3	3	50	24	BF	DG	58HE7	1	50	19	B	DM	99V	2	2.5	65	AC	D
48	3	2.5	35	BCD	E		3	50	18	EJL	HM	(V99)					
47	3	2.5	41	BCD	E	59	3	2.5	29	BCDE	FG	113HY	1	1.4	45	BC	E
48	3	32	25	BCD	EF	60FX5	2	50	22	BEFG	AD	(123HY)					
49	2	2	38	BCD	E	64	1	6.3	22	BCN	DE	114HY	3	1.4	55	N	G
50	3	7.5	42	BC	D	65	2	6.3	28	BCN	DE						
50A5	3	50	20	BCF	GH	67	3	6.3	37	BC	DE	115HY	1	1.4	45	BCD	E
50B5	3	50	20	AIEFG	BD	68	3	6.3	37	BCN	DE	(145HY)					
50BK5	2	50	21	ACGH	DF	70A7	3	70	23	CDE	FGH	117L7/	3	110	20	F	AG
50BM8	1	50	20	CFG	BE							M7	3	110	25	CDE	GH
	1	50	20	AJ	EH							117N7	3	110	20	CDE	FGH
50C5	3	50	22	BEFG	AC								3	110	15		GH
50C6	3	50	22	CDE	GH												
50CA5	3	50	22	BEFG	AC												
50CD4	3	50	23	E	CG	70L7	3	70	18	CDE	FG						
50EH5	3	50	20	BEFG	AD		3	70	17	H	AG	117P7	3	110	22	CDE	FGH
50FA5	3	50	22	BEFG	AD	71A	3	5	47	BC	D		3	110	15		GH
						72	4	2.5	35	N	D						
						75	1	6.3	20	BN	EF						
							1	6.3	38	C	EF						
							1	6.3	38	D	EF						
50FE5	3	50	22	CDE	BH		2	6.3	33	BC	DE	117Z3	3	110	24	AE	DF
50FK5	3	50	24	BEG	AC	76	2	6.3	30	BC	DE	117Z4	3	110	19	E	GH
50GY7*	3	25	19	E(J)KL	AHM	77	3	6.3	30	BCN	DEF	117Z6	3	110	20	C	DG
	25	21	B	ADM		78	3	6.3	31	BCN	DEF		3	110	20	E	GH
50HC6	3	50	19	BEG	AC	79	3	6.3	30	BC	DF	128A/	4	2.5	20	BC	DE
50HK6	3	50	20	BEG	AC		3	6.3	30	EN	DF	2523M1					
50JY8*	3	50	19	(AD)CEN	GH	80	3	5	55	B	D	163PEN	3	12.6	18	BGJ	CD
50L5	3	50	21	CDE	GH		3	5	55	C	D	182B	3	5	37	BC	D
50X6	3	50	19	C	BH							(482B)					
	3	50	19	F	GH	81	3	7.5	75	B	D	183	3	5	40	BC	D
50Y6	3	50	23	C	DG	82(82V)	3	2.5	24	B	D	(483)					
	3	50	23	E	GH		3	2.5	24	C	D	201B	2	5	45	BC	D
50Y7	3	50	20	C	BD	83(83V)	3	5	26	B	D	201C	2	5	45	BC	D
	3	50	20	E	BH		3	5	26	C	D	210T	3	7.5	58	BC	D
50Z6	3	50	21	C	DG		3	6.3	26	C	DE	2308	2	2	35	BC	D
	3	50	21	E	GH	85	3	6.3	45	BN	EF	232	2	2	42	BCN	D
50Z7	3	50	25	C	DFG		1	6.3	47	C	EF	233S	3	2	39	BCD	E
	3	50	25	E	FGH		1	6.3	47	D	EF	234S	2	2	40	BCN	D
52	3	6.3	30	BCD	E	86M	3	6.3	37	CE	GH	257A	2	2.5	41	BN	D
53	3	2.5	32	BC	DG	87S	2	6.3	33	BCN	DEF	262B	3	7.5	42	BN	CD
	3	2.5	32	EF	DG	88	3	5	26	B	D						
							3	5	26	C	D						

A shows short.

Allow tube to heat up. Move levers F &amp; G to top position. Good tube will kick to 70.

Good tube will kick to 70.

Good tube will kick to 70.

Good tube will kick to 70.

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Good tube will kick to 70.

Good tube will kick to 70.

Good tube will kick to 70.

Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

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Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
274A	3	5	36	B	D	865(A)	3	2.5	25	N	D	1606	3	2.5	24	BC	D
	3	5	36	C	D	GL874	4	.83	30	C	ABD	1609	2	1.4	32	BCD	E
300B	3	5	21	BC	D	Good tube reads above 10.						1610	3	2.5	28	BCD	E
310B	2	7.5	28	BCD	AE	TJ880*	2	6.3	21	B(CJ)GH	AE	1612	3	6.3	25	DN	GH
313C	4	Off	45	B	A	884	4	6.3	20	CE	GH	1614	3	6.3	24	CDE	GH
313CB	4	Off	53	B	AD	885	4	2.5	20	BC	DE	1616	3	2.5	57	N	D
313CD	4	Off	44	B	AD	950	3	2	46	BCD	E	1619	3	2.5	29	CDE	GH
348A	1	6.3	24	CDEN	BH	951	2	2	35	BCN	D	1620	1	6.3	22	CDN	GH
376B	4	Off	37	E	BG	986	3	5	26	B	D	1621	3	6.3	40	CDE	GH
383A	4	2.5	20	DN	AB		3	5	26	C	D	1622	3	6.3	27	CDE	GH
396A	2	6.3	23	CD	BFGHJ	1003	4	Off	22	E	CH	1624	3	2.5	26	BCN	E
	2	6.3	23	FG	BCDHJ		4	Off	32	C	EH	1625	3	12.6	25	CDN	FG
403B	2	6.3	22	AEF	BCG	1005/	4	6.3	26	E	F	1626	3	12.6	32	CE	GH
Tube damaged if B or G is moved.						CK1005						1629	2	12.6	36	CE	GH
407A	1	19.6	20	CD	ABJ		4	6.3	26	C	F	Eye OP	4	12.6	0	D	CEGH
	1	19.6	20	FG	AHJ	1006/	4	1.4	22	C	A	Eye CL	4	12.6	0	CD	EGH
408A*	1	19.6	20	AEF	(BG)D	CK1006						1631	3	12.6	27	CDE	GH
417A	2	6.3	20	ADEGH	FJ		4	1.4	25	B	A	1632	3	12.6	22	CDE	GH
427	3	2.5	44	BC	DE	CK1007	4	.63	21	C	G	1633	2	25	28	AB	CG
428A	3	5	47	BC	D		4	.63	21	E	G	1634	1	12.6	20	BC	FG
484(485)	3	2.5	32	BC	DE	CK1027	4	Off	27	DN	ABFG	1635	2	6.3	26	CD	EFQH
486	2	2.5	48	BC	DE	1201*	2	6.3	34	(AE)(CG)	(DF)H		2	6.3	26	EF	CDGH
502A	3	6.3	19	CEF	GH	1203	1	6.3	33	D	GH	1642	2	6.3	29	CN	BG
(GL502A)						1204	2	6.3	26	ACE	DFGH		2	6.3	29	DE	FG
567	3	5	24	D	H	1221	1	6.3	22	BCN	DEF	1654	1	1.4	41	N	A
	3	5	24	F	H	1222	3	6.3	20	BCD	FG	1680	1	6.3	24	AF	BDEG
585	3	7.5	42	BC	D	1223	1	6.3	22	CDN	EGH		1	6.3	56	EFG	ABD
586	3	7.5	42	BC	D	1229	1	2	25	BCN	D	1851	3	6.3	20	CDN	EGH
615HY	3	6.3	33	N	G	1231	2	6.3	23	BCF	DGH	1852	3	6.3	21	DFH	CEG
Short top caps together.						1232	2	6.3	22	BCDF	GH	No open element test on C & H.					
713A	2	6.3	25	DFH	CEG	1237	2	2.5	26	C	G	1853	3	6.3	23	DFH	CEG
717A	1	6.3	23	DFH	CEG		2	2.5	26	F	G	2050/	3	6.3	17	CEF	GH
Z729	1	6.3	20	AFHJ	BCEG	1266	4	Off	95	E	BCG	2051					
800	3	7.5	54	N	D	Good tube reads above 10. No open element test on levers C & G. Tube normally shows short in short position.						5516	3	2.5	25	CEN	BG
Short top caps together.						1267	4	Off	31	E	BG	5591	2	6.3	22	AEF	BCG
801	3	7.5	42	BD	D	1273	3	6.3	28	BCF	DGH	Tube damaged if B or G is moved.					
802	3	6.3	29	CDN	EFG	1274	4	6.3	19	C	GH	CK5606A	2	2.5	26	BC	DG
807	3	6.3	25	BCN	DE		4	6.3	19	E	GH		2	2.5	28	EF	DG
809	3	6.3	27	CN	D	1275	3	5	30	B	CD	GL5610	2	6.3	22	AEF	BD
811A	3	6.3	34	CE	D		3	5	30	C	BD	5618	3	2.5	21	BCDF	AG
Requires jumper from plate cap to pin 5 of any other tube socket.						1280	3	12.6	26	BCF	DGH	5642	1	1.4	100	N	E
812	3	6.3	29	CN	D	1284	3	12.6	25	BCF	DGH	Insert bottom leads into pins 4 & 5 respectively. Use plate cap top lead.					
816	4	2.5	19	N	A	1291	1	1.4	33	BC	AH	5651	4	Off	95	AE	BDG
837	3	12.6	25	CDN	EFG		1	1.4	33	FG	AH	Good tube reads above 30.					
840	2	2	33	BCN	DE	1293	2	1.4	32	BF	H	5684*	2	6.3	22	AEF	(BG)C
841	3	7.5	45	BC	D	1294	1	1.4	57	D	GH	5659	3	12.6	32	CDE	GH
842	3	7.5	54	BC	D	Good tube reads above 10.						5660	3	12.6	41	CFN	GH
864	1	1.4	55	BC	DE	1299	2	1.4	30	BCF	AH		1	12.6	38	D	GH
865	3	7.5	80	BCN	D	1603	1	6.3	23	BCN	DEF		1	12.6	38	E	GH



Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	FIL	Plate	Top (T)	Bottom (B)
6680	2	6.3	25	AB	CDE	7199	1	6.3	19	BCG	EF	Good tube reads above 26.					
	2	6.3	25	FG	DEH		2	6.3	21	AJ	EH	8032	3	12.6	23	CEN	ADFG
6681	1	6.3	20	AB	CDE	7233	3	6.3	19	(ACFJ)(BG)	DH	Tube damaged if AD or F is moved.					
	1	6.3	20	FG	DEH	7247	1	6.3	22	FG	DEH	8068	3	6.3	22	EHN	CG
6686	3	6.3	19	BGHJ	CE		2	6.3	24	AB	CDE	8077*	2	12.6	21	B(CJ)GH	AE
6688*	2	6.3	21	BGHJ	(AC)E	7258	2	12.6	22	AB	CE	8102	3	12.6	19	FGJ	EH
6689	2	6.3	20	ABFJ	CE		2	12.6	21	FGH	EJ		3	12.6	19	AC	BE
6689	3	6.3	20	AB	CDE	No open element test on F.						8106	3	12.6	19	A(CH)G	(BF)JE
	3	6.3	20	FG	DEH	7306	1	6.3	20	AB	CE	8113	3	6.3	20	AEF	BDG
6683*	3	12.6	19	CEN	(ADF)G		1	6.3	20	FG	EH	Tube damaged if B or G is moved.					
6687	1	6.3	20	B	DE	7316	2	6.3	24	AB	CJ	8136	3	6.3	19	AEF	BCG
	1	6.3	21	G	AD		2	6.3	24	FG	HJ	8156	3	12.6	22	•	BFHJM
6688	1	6.3	20	CDFH	EG	7355	3	6.3	19	CFH	EG	•(CDE)(GL)K					
6693*	3	12.6	21	CEN	(ADF)B	7360	2	6.3	20	BCFG	AEHJ	Tube damaged if BFH or J is moved.					
6919	1	6.3	23	B	DE	7406	3	6.3	24	CDE	AGH	8233*	3	6.3	19	A(BF)CH	DGJ
	1	6.3	23	G	AD	7543	1	6.3	20	ABEF	CG	Tube damaged if G or J is moved.					
6922	3	6.3	20	AB	CEJ	7551*	3	12.6	19	B(CH)FG	(AJ)E	8278*	3	6.3	19	(AH)(CG)J	BEF
	3	6.3	20	FG	EHJ	7558*	3	6.3	19	B(CH)FG	(AJ)E	Tube damaged if B or F is moved.					
6939	3	6.3	22	AFG	BDE	7581	3	6.3	20	CDE	BH	8417	3	6.3	19	CDE	GH
	3	6.3	22	CGH	BDE	7586	2	6.3	19	BD	HM	8425	2	6.3	22	ABEF	DG
6954	1	6.3	20	AEFG	BD	7587	2	6.3	19	BDN	HN	8552	3	12.6	23	CEN	ADFG
6973*	4	6.3	19	(AH)(CF)J	EG	No open element test on N.						Tube damaged if A, D or F is moved.					
7000	2	6.3	29	CDN	AEGH	7591	3	6.3	20	CDFH	EG	8908*	3	6.3	18	(AE)(BF)C	DH
7025	1	6.3	20	AB	CDE	7643	2	6.3	21	AJ	EH	8950	3	12.6	18	•	BFM
	1	6.3	20	FG	DEH		2	6.3	20	BCF	EG	•(CL)(DK)(E)JN					
7027*	4	6.3	18	(AD)C(EF)	GH	7687	1	6.3	19	BCF	EG	Tube damaged if B or F is moved.					
7036	1	6.3	20	AF	BD	No open element test on F.						9001*	1	6.3	20	AEF	(BG)D
	1	6.3	28	EG	BD	7695	2	6.3	23	AJ	EH	9002*	2	6.3	27	(AE)F	(BG)D
7044	2	6.3	19	AB	CDE	7700	1	6.3	20	BCN	DEF	9003*	2	6.3	27	AEF	(BG)D
	2	6.3	19	GJ	FDE	7701*	3	12.6	30	BF(GJ)	(ACH)E	9004	1	6.3	20	D	EG
7054	2	12.6	21	BCGHJ	AE	7716	1	12.6	19	BC	AE	9005	1	2.5	34	E	DGH
7055	2	12.6	23	G	AD		3	12.6	19	GHJ	EF	9006*	1	6.3	25	AE	(BG)D
	2	12.6	23	B	DE	7719	1	6.3	21	(AF)(BG)	(CH)DE	FOREIGN					
7056	2	12.6	21	AEFG	BD	7751*	3	6.3	20	(AD)CE	BH	A1834	3	6.3	16	AB	CH
7057	2	12.6	22	FG	EH	7754*	3	6.3	20	AFJ	EG		3	6.3	16	DE	FH
	2	12.6	22	AB	CE	7782*	3	6.3	17	B(F)JGH	ACE	AA91E	1	6.3	22	B	DE
7058	2	12.6	23	BCF	EG	Tube damaged if A or C is moved.							1	6.3	22	G	AD
	2	12.6	21	AJ	EH	7796	2	6.3	20	AB	CJ	ABC91	3	12.6	32	CDE	GH
7060	2	12.6	28	FGH	EJ		2	6.3	20	FG	HJ	AF	3	2.5	24	B	D
	2	12.6	23	AB	CE	7868*	3	6.3	20	(AG)(BF)J	CE		3	2.5	24	C	D
7061*	3	12.6	22	(AH)(CF)J	EG	7895	2	6.3	19	BD	HM	AG	3	5	26	B	D
7062	2	16.3	21	AB	CJ	7896	3	6.3	20	FG	HJ		3	5	26	C	D
	2	6.3	21	FG	HJ		3	6.3	20	AB	CJ	836	2	12.6	29	AB	CG
7105	3	12.6	15	AB	CH	7905*	2	3.15	24	B(CH)	AGJ		2	12.6	29	DE	FG
	3	12.6	15	DE	FH	Tube damaged if A or J is moved.						B309	2	6.3	24	AB	CJ
7119	4	6.3	19	GJ	DEF	7984*	3	12.6	19	•	BFHJM		2	6.3	24	FG	HJ
	4	6.3	19	AB	CDE	•(CDE)(GL)K						B339	1	6.3	20	AB	CDE
7137	2	6.3	22	AEFG	BD	8016	1	1.4	98	N	ACDEFGH		1	6.3	20	FG	CDE
7167*	3	12.6	22	AEF	(BG)C	Use G & N only for element test.						Tube damaged if D or E is moved.					
7189*	4	6.3	17	(AB)(F)JG	CE												
7193	2	6.3	24	N	GH												

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
D2M9	1	6.3	22	B	DE	RK33	3	6.3	27	DE	FG
	1	6.3	22	G	AD		3	6.3	27	CN	BG
E82CC	2	6.3	25	FG	DEH	RK34	3	6.3	27	EN	DG
	2	6.3	25	AB	CDE	Top cap lead on left top cap.					
E83CC	1	6.3	20	FG	DEH		3	6.3	27	CN	DG
	1	6.3	20	AB	CDE	Top cap lead on right top cap.					
E-90Z	3	6.3	30	F	DG	UF89	2	12.6	23	BGH	CEJ
	3	6.3	30	A	DG	VR75	4	Off	30	E	BCG
E92CC	1	6.3	20	BE	ADFG	Good tube reads above 10.					
	1	6.3	20	AF	BDEG	VR90	4	Off	30	E	BCG
E188CC	1	6.3	20	AB	CE	Good tube reads above 10.					
	1	6.3	20	FG	EH	VR105	4	Off	30	E	BCG
E810F*	3	6.3	17	B(FJ)GH	ACE	Good tube reads above 10.					
Tube damaged if A or C is moved.											
E-902	3	6.3	30	F	DG	VR150	4	Off	30	E	BCG
	3	6.3	30	A	DG	Good tube reads above 10.					
EAF801	3	6.3	23	ABF	CDJ	WL481	4	2.5	59	N	D
	1	6.3	34	H	CD	WNDA	3	6.3	35	BC	DEF
ECC808	2	6.3	23	AC	BD	WNDC	3	2.5	35	BC	DEF
	2	6.3	23	GJ	DH	WX12	1	1.4	55	BC	D
ECLL900	3	6.3	24	AB	DG	XXB	2	1.4	40	CD	AH
	3	6.3	20	BCJ	DG		2	1.4	40	EF	AH
	3	6.3	20	FHJ	DG	XXD	3	12.6	25	EF	BCDGH
ED500	1	6.3	28	HK	ABCEFGJ		3	12.6	25	CD	BEFGH
Tube damaged if ABCFG or J is moved.											
EF37A	3	6.3	28	CDEN	GH	XXFM	1	6.3	27	BC	DGH
EF804S	3	6.3	25	AGHJ	CD		1	6.3	27	E	DH
EL32	3	6.3	29	CDE	AGH		1	6.3	27	F	GH
EL-504*	3	6.3	19	(AB)(FG)N	CEH	XXL	2	6.3	24	BF	GH
Tube damaged if C or H is moved.											
EL-505*	4	6.3	21	*	EJ	Z2000	1	6.3	22	BE	CG
							1	6.3	22	AF	CG
*(AH)(BG)(CF)N											
EL-508	3	6.3	20	DEN	GH						
FM1000	1	6.3	20	BE	ACG						
	1	6.3	35	DF	ACG						
G4	1	2.5	45	B	DE						
	1	2.5	45	C	DE						
GA	3	5	32	BCD	E						
HY69	4	6.3	20	BCD	E						
HY1269	4	6.3	19	BCN	AE						
KR1	3	6.3	24	B	CD						
KR5	3	6.3	36	BCD	E						
KR25	3	2.5	36	BCD	EF						
KR98	3	6.3	26	B	DE						
	3	6.3	26	C	DE						
PZ	3	2.5	41	BCD	E						
PZH	3	2.5	36	BCD	EF						
R30	2	2	35	BC	D						
R100	3	7.5	43	N	D						
Short top caps together.											

# OBSOLETE OR SELDOM USED TYPES

Lever switch settings on large type refer to continuity tests. See test procedure in manual.

Tube	Type	Fil.	Plate	Top	Bottom	Tube	Type	Fil.	Plate	Top	Bottom
00A	2	5	30	bc	D	1V(KR-1)	3	6.3	24	b	cD
01A	2	5	45	bc	D	2A3	3	2.5	28	bc	D
0Y4	4	.75	22	e	cgh	2A4	(1) 3	2.5	25	e	G
1A3	1	1.4	75	BF	cG		(2) 3	2.5	25	c	eG
1A4	1	2	28	bck	D		(no short test)				
1A6	(1) 2	2	50	cd	F	2A5(KR-25)	3	2.5	36	bcd	eF
	(2) 1	2	95	bek	F	2A6	(1) 3	2.5	26	bk	eF
1AB5	1	1.4	25	bcf	GH		(2) 1	2.5	40	d	eF
1B4	1	2	27	bck	D		(3) 1	2.5	40	c	eF
1B4P(951)	2	2	35	bck	D	2A7	(1) 2	2.5	32	e	fG
1B5(25S)	(1) 1	2	31	be	F		(2) 2	2.5	64	bcdk	fG
	(2) 1	2	40	d	F	2B4	3	2.5	24	bc	dE
	(3) 1	2	40	c	F	2B6	(1) 2	2.5	95	b	Fg
1B7	(1) 1	1.4	26	ef	G		(2) 3	2.5	50	cd	eG
	(2) 1	1.4	95	cdk	G	2B7	(1) 3	2.5	47	bck	fG
1C6	(1) 2	2	42	cd	F		(2) 1	2.5	40	e	fG
	(2) 1	2	68	bek	F		(3) 1	2.5	40	d	FG
1C7	(1) 2	2	41	ef	G	2D21	3	6.3	18	aEFG	BD
	(2) 1	2	56	cdk	G	2E5	(1) 2	2.5	44	bc	eF
1D5	2	2	39	cdk	G	eye clsd.	(2) 4	2.5	0	bd	ceF
1D5GP	2	2	33	cdk	G	eye open	(3) 4	2.5	0	d	bceF
1D7	(1) 1	2	31	ef	G	2E24	3	2.5	22	cek	BG
	(2) 1	2	95	cdk	G		(in short test A, D, F should show short when moved to top position)				
1D8	(1) 2	1.4	48	fk	G	2G5	(1) 2	2.5	44	bc	eF
	(2) 2	1.4	37	cde	G	eye clsd.	(2) 4	2.5	0	bd	ceF
	(3) 1	1.4	95	h	G	eye open	(3) 4	2.5	0	d	bceF
1E4	2	1.4	45	ce	G	2S/4S	(1) 1	2.5	45	c	dE
1E5	1	2	35	cdk	G	(G-2)	(2) 1	2.5	45	b	dE
1E7	(1) 2	2	30	cdh	G	2V3	1	2.5	96	k	G
	(2) 2	2	30	efh	G		(good - 20)				
1F4	3	2	47	bcd	E	2Z2(G84)	3	2.5	56	b	D
1F5	2	2	36	cde	G	3A5	(1) 2	1.4	30	bc	D
1F6	(1) 1	2	37	bck	F		(2) 2	1.4	30	ef	D
	(2) 1	2	95	d	F	3B5*	2	1.4	35	cde	BG
	(3) 1	2	95	e	F	3B7(1291)	(1) 1	1.4	33	bc	AH
1F7(GV)	(1) 1	2	35	cfk	G		(2) 1	1.4	33	fg	AH
	(2) 1	2	95	e	G	4A6	(1) 2	2	35	cd	H
	(3) 1	2	95	d	G		(2) 3	2	46	ef	H
1G5	2	2	39	cde	G	5T4	(1) 3	5	26	f	H
1H4	2	2	41	ce	G		(2) 3	5	26	d	H
1H6	(1) 1	2	30	cf	G	5X3	(1) 3	5	43	b	D
	(2) 1	2	40	e	G		(2) 3	5	43	c	D
	(3) 1	2	40	d	G	6A5*	2	2.5	28	ce	BG
1J5	2	2	38	cde	G	10	3	7.5	37	bc	D
1J6	(1) 2	2	39	cd	G	10Y	3	7.5	42	bc	D
	(2) 2	2	39	ef	G	12A	2	5	26	bc	D
1N6	(1) 2	1.4	38	cde	G	12A7	(1) 2	12.6	29	bck	fG
	(2) 1	1.4	95	f	G		(2) 1	12.6	20	e	dG
	(good - 20 on test 2)					12Z3	3	12.6	25	b	cD
1R4(1294)	1	1.4	57	d	gH	14Z3	3	12.6	25	b	cD
	(good - 10)					15	2	2	36	bck	dE
1SA6	2	1.4	30	cdfh	G	18	3	12.6	31	bcd	eF
1SB6	(1) 1	1.4	36	cdh	G						
	(2) 1	1.4	90	e	G						

\*Tapped Filament - see instruction manual.

Tube	Type	Fil.	Plate	Top	Bottom	Tube	Type	Fil.	Plate	Top	Bottom
19	(1) 3	2	37	bc	F	56	2	2.5	30	bc	dE
	(2) 3	2	39	de	F	57	2	2.5	30	bck	deF
20	2	6.3	48	bc	D	57A(AS)	3	6.3	34	bck	deF
22	1	2.5	56	bck	D	58	3	2.5	35	bck	deF
24A	2	2.5	32	bck	dE	58AS	3	6.3	35	bck	deF
25A7	(1) 3	25	27	cde	Gh	59	3	2.5	29	bcde	fG
	(2) 3	25	23	f	aG	64	1	6.3	22	bck	dE
25AC5	3	25	31	ce	Gh	65	2	6.3	28	bck	dE
25B5	(1) 3	25	37	bd	eF	67	3	6.3	37	bc	dE
	(2) 3	25	46	cd	beF	68	3	6.3	37	bck	dE
25B6	3	25	23	cde	Gh	70A7	(1) 3	70	23	cde	FGh
25B8	(1) 2	25	25	cdk	aG		(2) 3	70	20		aFG
	(2) 2	25	25	eh	fG						
25D8	(1) 2	25	26	ef	aG						
	(2) 2	25	26	cdk	aG						
	(3) 1	25	22	h	aG						
25N6	2	25	30	cde	Gh	71A	3	5	47	bc	D
26	2	1.4	38	bc	D	72	4	2.5	35	k	D
26A6	2	25	22	abef	Dg	75	(1) 1	6.3	20	bk	eF
26A7	(1) 2	25	20	cde	bG		(2) 1	6.3	38	c	eF
	(2) 2	25	20	aeh	bG		(3) 1	6.3	38	d	eF
26C6	(1) 3	25	30	ag	bDef	76	2	6.3	33	bc	dE
	(2) 1	25	36	e	abDfg	77	2	6.3	30	bck	deF
	(3) 1	25	36	f	abDeg	78	3	6.3	31	bck	deF
26D6	(1) 2	25	22	af	bCeg	79	(1) 3	6.3	30	bc	dF
	(2) 1	25	40	efg	abC		(2) 3	6.3	30	ek	dF
27	2	2.5	32	bc	dE	81	3	7.5	75	b	D
28Z5	(1) 3	12.6	38	c	gH	82(82V)	(1) 3	2.5	24	b	D
	(2) 3	12.6	38	f	gH		(2) 3	2.5	24	c	D
29	2	2.5	36	bc	deF	85	(1) 3	6.3	45	bk	eF
30	2	2	35	bc	D		(2) 1	6.3	47	c	eF
31	2	2	40	bc	D		(3) 1	6.3	47	d	eF
32	2	2	42	bck	D	86M	3	6.3	37	ce	Gh
33	3	2	39	bcd	E	87S	2	6.3	33	bck	deF
34	2	2	40	bck	D	88	(1) 3	5	26	b	D
35/51	2	2.5	30	bck	dE		(2) 3	5	26	c	D
35A5	3	32	22	bcf	gH	88M	3	6.3	31	cdk	eGh
35Z6	(1) 3	32	20	c	dG	88S	3	6.3	32	bck	deF
	(2) 3	32	20	e	Gh	89	3	6.3	32	bck	eF
36	2	6.3	32	bck	dE	89RS	(1) 3	6.3	36	bk	CeG
37	3	6.3	37	bc	dE		(2) 1	6.3	24	d	cG
38	3	6.3	36	bck	dE		(3) 1	6.3	24	f	cG
39(44)	2	6.3	30	bck	dE	95	3	2.5	36	bcd	eF
40	1	5	28	bc	D	98	(1) 3	6.3	26	b	dE
40Z5(45Z5*)	3	32	20	e	BCh		(2) 3	6.3	26	c	dE
41	3	6.3	32	bcd	eF	99(99XX99)	2	2.5	65	bc	D
42	3	6.3	29	bcd	eF	99V/V99	2	2.5	65	ac	D
43	3	25	31	bcd	eF	113HY/123HY	1	1.4	45	bc	E
45	3	2.5	32	bc	D	114HY	3	1.4	55	k	G
46	3	2.5	35	bcd	E						
47	3	2.5	41	bcd	E						
48	3	32	25	bcd	eF						
49	2	2	38	bcd	E						
50(585)	3	7.5	42	bc	D						
52	3	6.3	30	bcd	E						
53	(1) 3	2.5	32	bc	dG						
	(2) 3	2.5	32	ef	dG						
55	(1) 2	2.5	32	bk	eF	128A/2523N1	4	2.5	20	bc	dE
	(2) 1	2.5	40	c	eF	182-B(482-B)	3	5	37	bc	D
	(3) 1	2.5	40	d	eF	183(483)	3	5	40	bc	D
						201B	2	5	45	bc	D

(shows short on "A")  
(2) 3 70 20 aFG  
(Allow tube to heat up, return levers  
"F" and "G" to UP position. Good  
tube will kick to 70.)

(Short top caps together)  
115HY/145HY 1 1.4 45 bcd E  
117P7 (1) 3 110 22 cde fGh  
(2) 3 110 15 Gh  
(Allow tube to heat up, return lever  
"G" to UP position. Good tube will  
kick to 70.)

Tube	Type	Fil.	Plate	Top	Bottom
201C	2	5	45	bc	D
210T	3	7.5	56	bc	D
230S	2	2	35	bc	D
233S	3	2	39	bcd	E
234S	2	2	40	bck	D
257A	2	2.5	41	bk	D
262B	3	7.5	42	bk	cD
274A	(1) 3	5	36	b	D
	(2) 3	5	36	c	D
300B	3	5	21	bc	d
310B	2	7.5	28	bcd	Ae
313C	4	.75	45	b	A
313CB	4	.75	53	b	ad
313CD	4	.75	44	b	ad
348A	1	6.3	24	cdek	Bh
376B	4	.75	37	e	bg
393A	4	2.5	20	dk	AB
427	3	2.5	44	bc	dE
482A	3	5	47	bc	D
484(485)	3	2.5	32	bc	dE
486	2	2.5	48	bc	dE
501X	1	1.4	35	cde	G
502A/GL502A	3	6.3	19	cef	gH
586	3	7.5	42	bc	D
605CX	2	6.3	22	abeg	Df
606BX	2	6.3	23	a	Cd
608CX	3	6.3	20	ae	Df
615HY	3	6.3	33	k	G
	(Short top caps together)				
619CX	2	6.3	25	ad	Ce
713A	2	6.3	25	dfh	CEG
717A	1	6.3	23	dfh	CEG
800	3	7.5	54	k	D
	(Short top caps together)				
801	3	7.5	42	bc	D
802	3	6.3	29	cdk	efG
809	3	6.3	27	ck	D
812	3	6.3	29	ck	D
816	4	2.5	19	k	A
837	3	12.6	25	cdk	efG
840	2	2	33	bck	dE
841	3	7.5	45	bc	D
842	3	7.5	54	bc	D
864	1	1.4	55	bc	dE
865	3	7.5	80	bck	D
866(A)	3	2.5	25	k	D
885	4	2.5	20	bc	dE
950	3	2	46	bcd	E
986	(1) 3	5	26	b	D
	(2) 3	5	26	c	D
1003	(1) 4	.75	22	e	ch
	(2) 4	.75	32	c	eh
1204	2	6.3	26	ace	DFGH
1221	1	6.3	22	bck	deF
1223	1	6.3	22	cdk	eGh
1229	1	2	25	bck	D
1231	2	6.3	23	bef	dgH
1232	2	6.3	22	bcdf	gH

Tube	Type	Fil.	Plate	Top	Bottom
1266	4	.75	95	e	bcg
	(Good tube reads 10. No open element on levers C and G. Tube normally shows short in short position.)				
1267	4	.75	31	e	BG
1275	(1) 3	5	30	b	cD
	(2) 3	5	30	c	bD
1293	2	1.4	32	bf	H
9001	1	6.3	20	aef	BDG
9002	2	6.3	27	Aef	BDG
9003	2	6.3	27	aef	BDG
9006	1	6.3	25	AE	BDG
AF	(1) 3	2.5	24	b	D
	(2) 3	2.5	24	c	D
AG	(1) 3	5	26	b	D
	(2) 3	5	26	c	D
G4	(1) 1	2.5	45	c	dE
	(2) 1	2.5	45	b	dE
GA	3	5	32	bcd	E
GL5663	2	6.3	32	aeg	bC
PZ	3	2.5	41	bcd	E
PZH	3	2.5	36	bcd	eF
R30	2	2	35	bc	D
R100	3	7.5	43	k	D
	(Short top caps together)				
RK33	(1) 3	6.3	27	de	fG
	(2) 3	6.3	27	ck	bG
RK34	(1) 3	6.3	27	ek	dG
	(top cap lead on left top cap)				
	(2) 3	6.3	27	ck	dG
	(top cap lead on right top cap)				
WL-481	4	2.5	59	k	D
WX-12	1	1.4	55	bc	D
WND-A	3	6.3	35	bc	deF
WND-C	3	2.5	35	bc	deF
XXFM	(1) 1	6.3	20	bc	dGH
	(2) 1	6.3	27	e	dH
	(3) 1	6.3	27	f	gH

The following television picture tubes may be tested on any Heathkit Tube Checker only by the use of the TV Picture Tube Adapter, #355. This data is provided as an added convenience for owners of the Heathkit TV Picture Tube Adapter.

#355 TV Picture Tube Adapter is available from the Heath Company for \$4.50.

TUBE	TYPE	FIL.	PLATE	TOP	BOT.	TUBE	TYPE	FIL.	PLATE	TOP	BOT.
7HP4	1	6.3	25	BF	AG	16KP4	1	6.3	25	BF	AG
10BP4	1	6.3	25	BF	AG	16KP4-A	1	6.3	25	BF	AG
10BP4-A	1	6.3	25	BF	AG	16LP4	1	6.3	23	BF	AG
10CP4	1	6.3	23	BF	AG	16LP4-A	1	6.3	23	BF	AG
10FP4	1	6.3	23	BF	AG	16MP4	1	6.3	23	BF	AG
10FP4-A	1	6.3	23	BF	AG	16MP4-A	1	6.3	23	BF	AG
						16QP4	1	6.3	23	BF	AG
12JP4	1	6.3	25	BF	AG	16RP4	1	6.3	25	BF	AG
12KP4	1	6.3	23	BF	AG	16SP4	1	6.3	23	BF	AG
12KP4-A	1	6.3	23	BF	AG	16SP4-A	1	6.3	23	BF	AG
12LP4	1	6.3	23	BF	AG	16TP4	1	6.3	25	BF	AG
12LP4-A	1	6.3	23	BF	AG	16UP4	1	6.3	25	BF	AG
12QP4	1	6.3	25	BF	AG	16VP4	1	6.3	23	BF	AG
12RP4	1	6.3	25	BF	AG	16WP4	1	6.3	23	BF	AG
12TP4	1	6.3	23	BF	AG	16WP4-A	1	6.3	23	BF	AG
12UP4	1	6.3	25	BF	AG	16XP4	1	6.3	23	BF	AG
12UP4-A	1	6.3	25	BF	AG	16YP4	1	6.3	23	BF	AG
12UP4-B	1	6.3	25	BF	AG	16ZP4	1	6.3	25	BF	AG
14BP4	1	6.3	23	BF	AG	17AP4	1	6.3	25	BF	AG
14CP4	1	6.3	25	BF	AG	17BP4	1	6.3	25	BF	AG
14DP4	1	6.3	23	BF	AG	17BP4-A	1	6.3	25	BF	AG
14EP4	1	6.3	25	BF	AG	17BP4-B	1	6.3	25	BF	AG
15AP4	1	6.3	25	BF	AG	19AP4	1	6.3	25	BF	AG
15CP4	1	6.3	23	BF	AG	19AP4-A	1	6.3	25	BF	AG
15DP4	1	6.3	25	BF	AG	19AP4-B	1	6.3	25	BF	AG
						19AP4-C	1	6.3	25	BF	AG
16AP4	1	6.3	25	BF	AG	19AP4-D	1	6.3	25	BF	AG
16AP4-A	1	6.3	25	BF	AG	19DP4	1	6.3	23	BF	AG
16CP4	1	6.3	23	BF	AG	19DP4-A	1	6.3	23	BF	AG
16DP4	1	6.3	23	BF	AG	19EP4	1	6.3	23	BF	AG
16DP4-A	1	6.3	23	BF	AG	19FP4	1	6.3	23	BF	AG
16EP4	1	6.3	25	BF	AG	19GP4	1	6.3	23	BF	AG
16EP4-A	1	6.3	25	BF	AG	19JP4	1	6.3	25	BF	AG
16FP4	1	6.3	25	BF	AG						
16GP4	1	6.3	25	BF	AG	20BP4	1	6.3	25	BF	AG
16GP4-B	1	6.3	25	BF	AG	20CP4	1	6.3	25	BF	AG
16HP4	1	6.3	23	BF	AG						
16HP4-A	1	6.3	23	BF	AG	22AP4	1	6.3	25	BF	AG
16JP4	1	6.3	25	BF	AG	22AP4-A	1	6.3	25	BF	AG
16JP4-A	1	6.3	25	BF	AG						

Tube	Type	Fil.	Plate	Top	Bottom
<b>OA2</b>	4	75	40	<b>AE</b>	<b>BDG</b>
				(Good = 10)	
<b>OA3/VR75</b>	4	75	30	<b>E</b>	<b>BCG</b>
				(Good = 10)	
<b>OA4</b>	4	75	40	<b>G</b>	<b>BE</b>
	4	75	44	<b>E</b>	<b>BG</b>
<b>OB2</b>	4	75	95	<b>AE</b>	<b>BDG</b>
				(Good = 10)	
<b>OB3/VR90</b>	4	75	30	<b>E</b>	<b>BCG</b>
				(Good = 10)	
<b>OC3/VR105</b>	4	75	30	<b>E</b>	<b>BCG</b>
				(Good = 10)	
<b>OD3/VR150</b>	4	75	30	<b>E</b>	<b>BCG</b>
				(Good = 10)	
<b>OZ4</b>	4	75	22	<b>E</b>	<b>CH</b>
	4	75	22	<b>C</b>	<b>EH</b>
<b>1A5</b>	2	1.4	50	<b>CDE</b>	<b>G</b>
<b>1A7</b>	1	1.4	31	<b>EF</b>	<b>G</b>
	1	1.4	95	<b>CDK</b>	<b>G</b>
<b>1AB4</b>	1	1.4	23	<b>BCF</b>	<b>AE</b>
<b>1AE5</b>	1	1.4	26	<b>ABDE</b>	<b>C</b>
<b>1AF4</b>	1	1.4	26	<b>BCF</b>	<b>AE</b>
<b>1AH4</b>	1	1.4	22	<b>ABD</b>	<b>C</b>
				(No open element test on lever A)	
<b>1AX2</b>	4	1.4	95	<b>K</b>	<b>BEH</b>
				(Good = 25)	
<b>1B3</b>	1	1.4	98	<b>K</b>	<b>ACDEFGH</b>
				(Good tube reads 26)	
				(Use G & K only for element test)	
	2	1.4	32	<b>CDE</b>	<b>G</b>
<b>1B8</b>	2	1.4	60	<b>FK</b>	<b>G</b>
	1	1.4	95	<b>H</b>	<b>G</b>
<b>1C5</b>	2	1.4	37	<b>CDE</b>	<b>G</b>
<b>1C21</b>	4	75	45	<b>E</b>	<b>BG</b>
<b>1E3</b>	3	1.4	30	<b>AH</b>	<b>CE</b>
<b>1G4</b>	1	1.4	30	<b>CE</b>	<b>G</b>
<b>1G6</b>	1	1.4	35	<b>CD</b>	<b>G</b>
	1	1.4	35	<b>EF</b>	<b>G</b>
<b>1H5</b>	1	1.4	33	<b>CK</b>	<b>G</b>
	1	1.4	40	<b>E</b>	<b>G</b>
<b>1L4</b>	2	1.4	37	<b>BCF</b>	<b>AE</b>
<b>1L6</b>	1	1.4	34	<b>CD</b>	<b>G</b>
	1	1.4	37	<b>BEF</b>	<b>G</b>
				(Good tube = 40 on test 2)	
<b>1LA4</b>	2	1.4	40	<b>BCF</b>	<b>H</b>
<b>1LA6</b>	1	1.4	30	<b>CD</b>	<b>H</b>
	1	1.4	95	<b>BEF</b>	<b>H</b>
				(Good = 40 on test 2)	
<b>1LB4</b>	2	1.4	40	<b>BCF</b>	<b>H</b>
<b>1LB6</b>	1	1.4	32	<b>BCDEFG</b>	<b>H</b>
<b>1LC5</b>	1	1.4	32	<b>BCDF</b>	<b>EH</b>
<b>1LC6</b>	1	1.4	32	<b>CD</b>	<b>H</b>
	1	1.4	30	<b>BEF</b>	<b>H</b>
	1	1.4	32	<b>BCF</b>	<b>H</b>
<b>1LD5</b>	1	1.4	95	<b>D</b>	<b>H</b>
				(Good tube = 20 on test 2)	
<b>1LE3</b>	2	1.4	37	<b>BF</b>	<b>H</b>
<b>1LG5</b>	2	1.4	35	<b>BCF</b>	<b>DEH</b>
<b>1LH4</b>	1	1.4	40	<b>BF</b>	<b>H</b>
	1	1.4	95	<b>D</b>	<b>H</b>
				(Good = 20 on test 2)	
<b>1LN5</b>	2	1.4	40	<b>BCDF</b>	<b>EH</b>
<b>1N5</b>	1	1.4	27	<b>CDK</b>	<b>G</b>
<b>1P5</b>	1	1.4	31	<b>CDK</b>	<b>G</b>
<b>1Q5</b>	2	1.4	33	<b>CDE</b>	<b>G</b>
<b>1R5</b>	1	1.4	21	<b>D</b>	<b>AE</b>
	1	1.4	95	<b>BCF</b>	<b>AE</b>
<b>1S4</b>	2	1.4	30	<b>BCDF</b>	<b>AE</b>
<b>1S5</b>	1	1.4	41	<b>DEF</b>	<b>G</b>
	1	1.4	55	<b>C</b>	<b>G</b>
				(Good = 30 on test 2)	

Tube	Type	Fil.	Plate	Top	Bottom
	3	6.3	26	<b>HJ</b>	<b>CEG</b>
<b>6T8</b>	1	6.3	26	<b>B</b>	<b>CEG</b>
	1	6.3	26	<b>A</b>	<b>CEG</b>
	1	6.3	26	<b>F</b>	<b>CEG</b>
<b>6U3</b>	3	6.3	17	<b>J</b>	<b>CD</b>
<b>6U4</b>	3	6.3	18	<b>E</b>	<b>CG</b>
<b>6U6</b>	3	6.3	24	<b>CDE</b>	<b>GH</b>
<b>6U7</b>	2	6.3	30	<b>CDK</b>	<b>EGH</b>
<b>6U8</b>	2	6.3	22	<b>AJ</b>	<b>EH</b>
	2	6.3	22	<b>BCF</b>	<b>EG</b>
<b>6V3</b>	3	6.3	16	<b>BGJ</b>	<b>EK</b>
<b>6V4</b>	3	6.3	26	<b>B</b>	<b>DE</b>
	3	6.3	26	<b>C</b>	<b>DE</b>
<b>6V6</b>	3	6.3	29	<b>CDE</b>	<b>AGH</b>
	3	6.3	46	<b>K</b>	<b>GH</b>
<b>6V7</b>	1	6.3	50	<b>D</b>	<b>GH</b>
	1	6.3	50	<b>E</b>	<b>GH</b>
	1	6.3	21	<b>AF</b>	<b>CE</b>
<b>6V8</b>	1	6.3	20	<b>G</b>	<b>EH</b>
	2	6.3	65	<b>J</b>	<b>CE</b>
	2	6.3	22	<b>B</b>	<b>CE</b>
<b>6W4</b>	3	6.3	18	<b>E</b>	<b>CH</b>
<b>6W5</b>	3	6.3	25	<b>C</b>	<b>GH</b>
	3	6.3	25	<b>E</b>	<b>GH</b>
<b>6W6</b>	3	6.3	21	<b>CDE</b>	<b>GH</b>
<b>6W7</b>	1	6.3	20	<b>CDK</b>	<b>EGH</b>
<b>6X4</b>	3	6.3	25	<b>A</b>	<b>DG</b>
	3	6.3	25	<b>F</b>	<b>DG</b>
<b>6X5</b>	3	6.3	28	<b>C</b>	<b>GH</b>
	3	6.3	28	<b>E</b>	<b>GH</b>
<b>6X6</b>	2	6.3	41	<b>E</b>	<b>GH</b>
<b>Eye CL</b>	4	6.3	0	<b>CD</b>	<b>EGH</b>
<b>Eye OP</b>	4	6.3	0	<b>D</b>	<b>CEGH</b>
<b>6X8</b>	2	6.3	24	<b>BC</b>	<b>EF</b>
	2	6.3	23	<b>GHJ</b>	<b>AEF</b>
<b>6Y3G</b>	4	6.3	47	<b>K</b>	<b>G</b>
<b>6Y5</b>	3	6.3	28	<b>C</b>	<b>DF</b>
	3	6.3	28	<b>E</b>	<b>DF</b>
<b>6Y6</b>	3	6.3	19	<b>CDE</b>	<b>GH</b>
<b>6Y7</b>	3	6.3	33	<b>CD</b>	<b>GH</b>
	3	6.3	33	<b>EF</b>	<b>GH</b>
<b>6Z3</b>	3	6.3	24	<b>B</b>	<b>CD</b>
<b>6Z4 (84)</b>	3	6.3	26	<b>B</b>	<b>DE</b>
<b>(KR98)</b>	3	6.3	26	<b>C</b>	<b>DE</b>
<b>6Z5 (12Z5)</b>	3	6.3	25	<b>C</b>	<b>BDF</b>
	3	6.3	25	<b>E</b>	<b>BDF</b>
<b>6Z7</b>	3	6.3	32	<b>CD</b>	<b>GH</b>
	3	6.3	32	<b>EF</b>	<b>GH</b>
<b>6ZY5</b>	3	6.3	36	<b>C</b>	<b>GH</b>
	3	6.3	36	<b>E</b>	<b>GH</b>
<b>7A4 (XXL)</b>	2	6.3	24	<b>BF</b>	<b>GH</b>
<b>7A5</b>	3	6.3	23	<b>BCF</b>	<b>GH</b>
<b>7A6</b>	1	6.3	23	<b>C</b>	<b>BH</b>
	1	6.3	28	<b>F</b>	<b>GH</b>
<b>7A7</b>	3	6.3	28	<b>BCF</b>	<b>DGH</b>
<b>7A8</b>	2	6.3	35	<b>CD</b>	<b>GH</b>
	2	6.3	44	<b>BEF</b>	<b>GH</b>
<b>7AB7</b>	3	6.3	26	<b>ACE</b>	<b>DFGH</b>
<b>7AD7</b>	3	6.3	17	<b>BCDF</b>	<b>EGH</b>
<b>7AF7</b>	2	6.3	25	<b>CD</b>	<b>BGH</b>
	2	6.3	25	<b>EF</b>	<b>BGH</b>
<b>7AG7</b>	2	6.3	22	<b>BCF</b>	<b>DEGH</b>
<b>7AH7</b>	2	6.3	21	<b>BCDF</b>	<b>GH</b>
<b>7AJ7</b>	2	6.3	23	<b>BCF</b>	<b>DGH</b>
<b>7AK7</b>	2	6.3	22	<b>BCDF</b>	<b>GH</b>
<b>7B4</b>	1	6.3	22	<b>BF</b>	<b>GH</b>
<b>7B5</b>	3	6.3	29	<b>BCF</b>	<b>GH</b>
	2	6.3	25	<b>BC</b>	<b>DGH</b>
<b>7B6</b>	1	6.3	58	<b>E</b>	<b>DGH</b>
	1	6.3	58	<b>F</b>	<b>DGH</b>
<b>7B7</b>	2	6.3	28	<b>BCF</b>	<b>DGH</b>

Tube	Type	Fil.	Plate	Top	Bottom
1T4	2	1.4	35	BCF	G
1T5	2	1.4	40	CDE	G
1U4	2	1.4	30	BCF	AE
1U5	2	1.4	40	BCF	A
	1	1.4	66	D	A
1U6	1	1.4	34	CD	BEFG
	1	1.4	40	BEF	CDG
(Good = 30 on test 2)					
1V2	4	75	95	AJ	E
1X2	4	1.4	67	K	ADFJ
	4	1.4	67	K	BEH
1X2A	4	1.4	67	K	ADFJ
	4	1.4	68	K	BEH
1Z2	1	1.4	90	K	BEG
(Good = 30)					
2C21	2	6.3	29	CK	BG
(1642)	2	6.3	29	DE	FG
2C22	3	6.3	22	K	GH
(Short top caps together)					
2C26	3	6.3	35	K	GH
2C51	2	6.3	23	CD	BFGHJ
	2	6.3	23	FG	BCDHJ
2C52	2	12.6	26	DE	FG
	2	12.6	26	AB	CG
2E22	3	6.3	25	BCDK	E
2E25	3	6.3	28	DEHK	B
2E26	3	6.3	21	CEK	ABDF
2E30	3	2.5	26	ABEF	CD
2W3	2	2.5	36	D	H
2X2 (879)	4	2.5	52	K	D
2X2A	4	2.5	44	K	D
2X3	3	2.5	43	D	H
2Y2	1	2.5	95	K	D
(Good = 40)					
3A4	2	1.4	26	BCDF	AG
	1	1.4	36	CDK	BG
3A8	1	1.4	36	EF	BG
	1	1.4	45	H	BG
3B4	3	1.4	47	ACG	E
3C4	1	1.4	23	BCF	E
3C5	2	1.4	34	CDE	BG
3C6 (XXB)	2	1.4	40	CD	AH
	2	1.4	40	EF	AH
3D6 (1299)	2	1.4	30	BCF	AH
3E5*	2	1.4	31	BCF	AG
3E6*	2	1.4	30	BCDF	AH
3LE4	2	1.4	34	BCF	AH
3LF4*	2	1.4	30	BCF	AH
3Q4*	2	1.4	33	BCDF	AG
3Q5*	3	1.4	27	CDE	BG
3S4*	2	1.4	35	BCDF	AG
3V4*	2	1.4	28	BCF	AG
5AX4GT	3	5	40	D	B
	3	5	40	F	H
5AZ4	3	5	43	F	H
	3	5	43	D	H
5R4 (GY)	3	5	34	D	H
	3	5	34	F	H
5U4	3	5	35	F	H
	3	5	35	D	H
5V4	3	5	25	F	H
	3	5	25	D	H
5W4	3	5	48	F	H
	3	5	48	D	H
5X4	3	5	33	E	H
	3	5	33	C	H
5Y3	3	5	57	F	H
	3	5	57	D	H
5Y4	3	5	57	E	G
	3	5	57	C	G

Tube	Type	Fil.	Plate	Top	Bottom
7B8	2	6.3	28	CD	GH
	2	6.3	34	BEF	GH
7C4/1203A	2	6.3	33	D	GH
7C5	3	6.3	29	BCF	GH
	3	6.3	33	BC	DGH
7C6	1	6.3	40	E	DGH
	1	6.3	40	F	DGH
7C7	1	6.3	22	BCF	DGH
7E5/1201	2	6.3	34	ACEG	DFH
	2	6.3	27	BC	DGH
7E6	1	6.3	45	E	DGH
	1	6.3	45	F	DGH
	3	6.3	36	BEF	GH
7E7	1	6.3	40	C	GH
	1	6.3	46	D	GH
7F7	1	6.3	20	CD	BH
	1	6.3	20	EF	GH
7F8	2	6.3	22	AC	DG
	2	6.3	22	FH	EG
7G7 (1232)	2	6.3	22	BCDF	GH
7G8	2	6.3	24	BCD	EFGH
	2	6.3	24	CEG	BDFH
7H7	2	6.3	24	BCF	DGH
7J7	2	6.3	30	CDE	GH
	2	6.3	30	BEF	GH
	1	6.3	20	CD	BH
7K7	1	6.3	39	E	GH
	1	6.3	39	F	GH
7L7	2	6.3	26	BCF	DGH
7N7	2	6.3	26	CD	BH
	2	6.3	26	EF	GH
7Q7	2	6.3	25	CD	GH
	2	6.3	41	BEF	GH
	2	6.3	22	BEF	GH
7R7	1	6.3	50	C	GH
	1	6.3	50	D	GH
7S7	2	6.3	33	CD	GH
	2	6.3	23	BEF	GH
7V7	3	6.3	18	BCF	DGH
7W7	2	6.3	24	BCF	DEGH
7X6	3	6.3	20	C	BH
	3	6.3	20	F	GH
	1	6.3	21	BC	DGH
7X7	1	6.3	20	E	DGH
	1	6.3	21	F	DGH
7Y4	3	6.3	33	C	GH
	3	6.3	33	F	GH
7Z4	3	6.3	34	C	GH
	3	6.3	34	F	GH
12A5	3	6.3	32	BCD	EF
12A6	3	12.6	32	CDE	GH
12A8	2	12.6	36	EF	GH
	2	12.6	28	CDK	GH
12AH7	3	12.6	30	AC	BG
	3	12.6	30	EF	DG
12AL5	2	12.6	25	B	ACE
	2	12.6	25	G	ACE
	3	12.6	26	AG	BC
12AT6	1	12.6	35	E	BC
	1	12.6	35	F	BC
12AT7	2	6.3	24	AB	CJ
	2	6.3	24	FG	HJ
12AU6	2	12.6	22	ABEF	DG
12AU7	2	6.3	25	AB	CDE
	2	6.3	25	FG	DEH
	3	12.6	23	AG	BD
12AV6	1	12.6	44	E	BD
	1	12.6	44	F	BD
12AV7*	2	6.3	21	FG	DEH
	2	6.3	22	AB	CDE
12AW6	2	12.6	22	AIEFG	BD
(No open element check on Lever E)					
12AX4	3	12.6	22	E	CG

Tube	Type	Fil.	Plate	Top	Bottom
5Z3	3	5	35	C	D
5Z3	3	5	35	B	D
5Z4	3	5	27	F	B
5Z4	3	5	27	D	B
6A3	3	6.3	28	BC	D
6A4/LA (KR5)	3	6.3	36	BCD	E
6A6	3	6.3	36	BC	DG
6A6	3	6.3	36	EF	DG
6A7	2	6.3	30	DE	FG
6A7	2	6.3	38	BCK	FG
6A8	2	6.3	31	EF	GH
6A8	2	6.3	40	CDK	GH
6AB4	2	6.3	22	AF	CG
6AB5	2	6.3	36	BC	EF
Eye CL	4	6.3	0	BD	CEF
Eye OP	4	6.3	0	D	BCEF
6AB6	3	6.3	62	DE	CGH
6AB6	3	6.3	44	CE	DGH
6AB7 (1853)	3	6.3	23	DFH	CEG
6AB8	1	6.3	20	FGHJ	CE
(ECL80)	1	6.3	23	AB	CE
6AC5	3	6.3	34	CE	GH
6AC6	2	6.3	26	CDE	GH
6AC7 (1852)	3	6.3	21	DFH	CEG
6AD6	4	6.3	95	CDE	GH
(Good = 26)					
Eye CL	4	6.3	0	CDE	GH
Eye OP	4	6.3	0	E	CDGH
6AD7	3	6.3	33	CDE	GH
6AD7	2	6.3	51	AF	GH
6AE5	3	6.3	29	CE	GH
6AE6	2	6.3	33	CE	GH
6AE6	2	6.3	33	DE	GH
6AE7	2	6.3	26	CD	EG
6AE7	2	6.3	27	CF	GH
6AF4	2	6.3	21	ABFG	DE
6AF5	2	6.3	24	CE	GH
6AF6	4	6.3	95	CDE	GH
(Good = 26)					
Eye CL	4	6.3	0	CDE	GH
Eye OP	4	6.3	0	E	CDGH
6AG5	3	6.3	20	AEF	BCG
6AG7	3	6.3	24	DFH	EG
6AH4GT	2	6.3	22	AF	GH
6AH6	2	6.3	22	AEF	BCG
6AH7	3	6.3	30	AC	BG
6AH7	3	6.3	30	EF	DG
6AJ5	2	6.3	23	AEF	BCG
6AK5	2	6.3	22	AEF	BCG
6AK6	3	6.3	30	ABEF	CG
6AK8	1	6.3	20	A	DG
6AK8	1	6.3	40	F	DG
6AK8	1	6.3	21	HJ	DG
6AK8	1	6.3	20	B	CD
6AL5	1	6.3	23	G	AD
6AL5	1	6.3	23	B	DE
6AL6	3	6.3	24	DEK	GH
6AL7	1	6.3	40	ACDEF	BH
Eye OP	4	6.3	0	C	BDFH
Eye CL	4	6.3	0	C	BH
6AN4	2	6.3	20	ABFG	CE
6AN5	3	6.3	17	AEF	BDG
6AQ5	3	6.3	22	AIEFG	BD

Tube	Type	Fil.	Plate	Top	Bottom
12AX7	1	6.3	20	AB	CDE
12AX7	1	6.3	20	FG	DEH
12AY7	1	6.3	22	AB	CDEH
12AY7	1	6.3	22	FG	CDEH
12AZ7	1	6.3	20	AB	CDE
12AZ7	1	6.3	20	FG	DEH
12B6	3	12.6	31	CK	GH
12B6	1	12.6	58	D	GH
12B6	1	12.6	58	E	GH
12B8	2	12.6	26	CDK	AG
12B8	3	12.6	26	EH	FG
12BA6	2	12.6	22	ABEF	DG
12BA7	3	12.6	18	AB	CEFGJ
12BA7	1	12.6	36	AFGJ	BCE
12BD6	2	12.6	27	ABEF	DG
12BE6	2	12.6	24	A	BD
12BE6	2	12.6	24	EFG	BD
12BE6	2	12.6	34	AG	BD
12BF6	1	12.6	38	E	BD
12BF6	1	12.6	38	F	BD
12BH7*	2	6.3	21	AB	CDE
12BH7*	2	6.3	21	FG	DEH
12BK6	1	12.6	24	AG	BC
12BK6	1	12.6	32	E	BC
12BK6	1	12.6	36	F	BC
12BN6	1	12.6	36	BEFG	AC
(Good = 30)					
12BT6	1	12.6	22	AG	BC
12BT6	1	12.6	29	E	BC
12BT6	1	12.6	29	F	BC
12BY7*	3	6.3	17	BGH	ACDEJ
(No open element test on lever G)					
12BZ7	1	6.3	19	FG	DEH
12BZ7	1	6.3	19	AB	CDE
12C8	3	12.6	41	CFK	GH
12C8	1	12.6	38	D	GH
12C8	1	12.6	38	E	GH
12E5	3	12.6	30	CE	GH
12F5	1	12.6	22	DK	GH
12H6	1	12.6	25	C	DG
12H6	1	12.6	25	E	GH
12J5	2	12.6	24	CE	GH
12J7	1	12.6	20	CDK	EGH
12K7	3	12.6	34	CDK	EGH
12K8	3	12.6	52	CDK	GH
12K8	1	12.6	22	EF	GH
12L8G	3	12.6	20	CDE	BG
12L8G	3	12.6	22	AEH	BG
12Q7	1	12.6	20	CK	GH
12Q7	1	12.6	40	D	GH
12Q7	1	12.6	40	E	GH
12Q7	1	12.6	27	FK	BH
12S8	1	12.6	39	C	EH
12S8	1	12.6	37	A	BH
12S8	1	12.6	34	D	BH
12SA7	2	12.6	25	DE	FG
12SA7	2	12.6	35	CH	FG
12SC7	1	12.6	20	BC	FG
12SC7	1	12.6	20	DE	FG
12SF5	1	12.6	20	CE	BG
12SF7	3	12.6	30	BDF	CG
12SF7	1	12.6	40	E	CG
12SG7	3	12.6	19	DFH	CEG
12SH7	3	12.6	19	DFH	CEG
12SJ7	1	12.6	20	DFH	CEG
12SK7	3	12.6	28	CDFH	EG

Tube	Type	Fil.	Plate	Top	Bottom
6BQ6	3	6.3	21	DEK	GH
6BQ7	2	6.3	22	AB	CD
	2	6.3	21	FG	DH
6BT6	1	6.3	21	AG	BC
	1	6.3	30	E	BC
	1	6.3	30	F	BC
6BX6 (EF80)	2	6.3	22	BGHJ	ACE
6BY5G	3	6.3	23	D	AG
	3	6.3	23	E	GH
6BZ7	2	6.3	21	FG	DH
	2	6.3	20	AB	CD
6C4	2	6.3	25	AEF	DG
6C5	2	6.3	30	CE	GH
6C6	1	6.3	21	BCK	DEF
6C7	1	6.3	21	BK	FG
	1	6.3	40	D	FG
	1	6.3	40	E	FG
6C8	2	6.3	27	CK	DG
	2	6.3	27	EF	GH
6CB6	2	6.3	22	AEFG	BC
(No open element test on lever E)					
6CD6	3	6.3	17	EHK	BC
6CJ6	3	6.3	16	ABFGHJK	CE
6CL6	3	6.3	16	BCFGHJ	AD
6D4	3	6.3	20	AG	DE
6D5	3	6.3	32	CE	GH
6D6	3	6.3	27	BCDK	EF
6D7	2	6.3	28	BCK	DFG
6D8	2	6.3	34	EF	GH
	2	6.3	42	CDK	GH
6E5	2	6.3	36	BC	EF
Eye OP	4	6.3	0	D	BCEF
Eye CL	4	6.3	0	BD	CEF
6E6	3	6.3	31	BC	DG
	3	6.3	31	EF	DG
6E7	2	6.3	28	BCK	DFG
6F5	1	6.3	20	DK	GH
6F6	3	6.3	32	CDE	GH
6F7	3	6.3	43	BCK	FG
	3	6.3	82	DE	FG
6F8	2	6.3	24	CK	DG
	2	6.3	24	EF	GH
6G5 (6U5)	2	6.3	36	BC	EF
Eye CL	4	6.3	0	BD	CEF
Eye OP	4	6.3	0	D	BCEF
6G6	3	6.3	36	CDE	GH
6G6G	2	6.3	28	CDE	BH
	3	6.3	36	BK	CEG
6G7	1	6.3	24	D	CG
	1	6.3	24	F	CG
6H4	1	6.3	26	D	GH
6H5	2	6.3	36	BC	EF
Eye CL	4	6.3	0	BD	CEF
Eye OP	4	6.3	0	D	BCEF
6H6	1	6.3	25	C	DG
	1	6.3	25	E	GH
6H7S	3	6.3	33	BCD	FG
	2	6.3	52	EK	FG
6J4	2	6.3	20	AEFG	BD
6J5	2	6.3	24	CE	GH
6J6	1	6.3	18	AF	DG
	1	6.3	18	BE	DG
6J7	2	6.3	29	CDK	AEGH
6J8	2	6.3	25	CDK	GH
	2	6.3	25	EF	GH
6K5	1	6.3	20	CK	GH
6K6	3	6.3	34	CDE	GH
6K7	2	6.3	32	CDK	EGH

Tube	Type	Fil.	Plate	Top	Bottom
19T8	1	25	19	B	ACEFGHJ
	1	25	19	F	ABCEGHJ
	1	25	19	A	BCEFGHJ
	1	25	22	AF	CE
19V8	1	25	19	G	EH
	1	25	19	B	CE
	1	25	36	J	CE
19X3	3	25	18	J	CD
19X8	2	25	21	AGHJ	DF
	2	25	22	BC	DF
20J8	1	25	20	EF	GH
	1	25	19	CDEK	GH
25A6	3	25	27	CDE	GH
25AV5	3	25	18	AEH	BC
25BQ6	2	25	21	DEK	GH
25C6	3	25	25	CDE	GH
25L6	3	25	22	CDE	GH
25W4	3	25	18	E	CG
25X6	3	25	27	C	DG
	3	25	27	E	GH
25Y4	3	25	25	E	GH
25Y5	3	25	30	B	CF
	3	25	30	E	DF
25Z5	3	25	25	B	CF
	3	25	25	E	DF
25Z6	3	25	24	C	DG
	3	25	24	E	GH
28D7	2	25	22	BCD	FH
	2	25	22	CEG	FH
32L7	3	32	21	CDE	GH
	3	32	18	F	AG
35B5	3	32	20	AEFG	BD
(Shows short A and G)					
35C5	3	32	20	BEFG	AC
35L6	3	32	20	CDE	GH
35W4*	3	32	20	E	DFG
35Y4*	3	32	23	B	ADG
35Z3	3	32	22	B	GH
35Z4	3	32	20	E	GH
35Z5*	3	32	21	E	BCH
45Z3	3	50	24	BF	DG
50A5	3	50	20	BCF	GH
50B5	3	50	20	AEFG	BD
50C5	3	50	17	BEFG	AC
50C6	3	50	22	CDE	GH
50L6	3	50	21	CDE	GH
50X6	3	50	19	C	BH
	3	50	19	F	GH
50Y6	3	50	23	C	DG
	3	50	23	E	GH
50Y7	3	50	20	C	DFG
	3	50	20	E	FGH
50Z6	3	50	21	E	GH
	3	50	21	C	DG
50Z7*	3	50	25	C	DFG
	3	50	25	E	FGH
70L7	3	70	18	CDE	FG
	3	70	17	H	AG
80	3	5	55	B	D
	3	5	55	C	D
83	3	5	26	B	D
(83V)	3	5	26	C	D
117L7	3	110	25	CDE	GH
(117M7)	3	110	20	F	AG
117N7	3	110	20	CDE	FGH
	3	110	15		GH

(Allow tube to heat up. Return lever G to top position. Good tube will kick to 70.)

Tube	Type	Fil.	Plate	Top	Bottom
6AQ6	1	6.3	20	AG	BC
	1	6.3	40	E	BC
	1	6.3	40	F	BC
6AQ7	1	6.3	22	DE	FH
	1	6.3	34	C	BH
6AR5	1	6.3	34	A	BH
	3	6.3	30	AEF	BD
6AR6	3	6.3	20	CEG	AH
6AS5	1	6.3	19	BEFG	AC
6AS6	2	6.3	25	AEFG	BC
6AS7	3	6.3	16	AB	CH
	3	6.3	16	DE	FH
6AT6	1	6.3	20	AG	BC
	1	6.3	35	E	BC
	1	6.3	35	F	BC
6AU5	3	6.3	22	AEH	CG
6AU6	2	6.3	22	ABEF	DG
6AV5	2	6.3	25	AEH	BC
6AV6	3	6.3	23	AG	BD
	1	6.3	44	E	BD
6AX4	1	6.3	44	F	BD
	3	6.3	22	E	CH
6AX5	3	6.3	32	C	BH
	3	6.3	32	E	BH
6AX6G	1	6.3	19	E	GH
	1	6.3	19	C	DG
6B4	3	6.3	28	CE	G
6B5	3	6.3	45	BD	CEF
	3	6.3	63	CD	BEF
6B6	3	6.3	32	CK	GH
	1	6.3	40	D	GH
6B7	1	6.3	40	E	GH
	3	6.3	50	BCK	FG
6B8	1	6.3	40	D	GH
	1	6.3	40	E	GH
6BA6	3	6.3	45	CFK	GH
	1	6.3	40	D	GH
6BA7	1	6.3	40	E	GH
	3	6.3	18	AB	CEFGJ
6BC5 (5654)	1	6.3	36	AFGJ	BCE
	2	6.3	22	AEF	BCG
6BC7	1	6.3	20	B	AD
	1	6.3	21	F	DG
6BD6	1	6.3	20	H	DJ
	2	6.3	26	ABEF	DG
6BD7	1	6.3	21	AB	CE
	1	6.3	51	F	CE
6BE6	1	6.3	46	H	CE
	2	6.3	22	A	BD
6BE7	2	6.3	22	EFG	BD
	1	6.3	20	ABFGJ	CEH
6BF5	1	6.3	30	FJ	CEH
	3	6.3	18	AEFG	BC
6BF6	3	6.3	28	AG	BDEF
	1	6.3	38	E	ABDFG
6BG6	1	6.3	38	F	ABDEG
	3	6.3	19	EHK	CG
6BH6	2	6.3	22	AEFG	BC
6BJ6	2	6.3	22	AEFG	BD
6BK5	2	6.3	21	ACGH	DF
6BK6	1	6.3	24	AG	BC
	1	6.3	32	E	BC
6BK7	1	6.3	36	F	BC
	2	6.3	21	FG	EH
6BL7	2	6.3	21	AB	CE
	3	6.3	22	AB	CG
6BN6	3	6.3	22	DE	FG
	1	6.3	36	BEFG	AC

(Good tube reads 23)

Tube	Type	Fil.	Plate	Top	Bottom
12SL7	3	12.6	28	AB	CG
	3	12.6	28	DE	FG
12SN7	2	12.6	29	AB	CG
	2	12.6	29	DE	FG
12SQ7	1	12.6	22	BF	CG
	1	12.6	50	D	CG
12SR7	1	12.6	50	E	CG
	3	12.6	27	BF	CG
12SW7	1	12.6	48	D	CG
	1	12.6	36	E	CG
12SX7	2	12.6	26	BF	CG
	1	12.6	43	D	CG
12SY7	1	12.6	43	E	CG
	2	12.6	25	DE	FH
14	2	12.6	25	AB	CH
	2	12.6	32	ACH	FG
14A4	2	12.6	26	DE	FG
14A5	2	12.6	30	BCK	DE
14A7 (12B7)	2	12.6	26	BF	GH
14AF7 (XXD)	3	12.6	33	BCF	GH
	3	12.6	25	CD	BEFGH
14B6	3	12.6	25	EF	BCDGH
	1	12.6	20	BC	DGH
14B8	1	12.6	40	E	DGH
	1	12.6	40	F	DGH
14C5	2	12.6	34	CD	GH
	2	12.6	30	BEF	GH
14C7	3	12.6	25	BCF	GH
	2	12.6	28	BCF	DGH
14E6	3	12.6	31	BC	DGH
	1	12.6	65	E	DGH
14E7	1	12.6	65	F	DGH
	2	12.6	28	BEF	GH
14F7	1	12.6	58	C	GH
	1	12.6	58	D	GH
14F8	1	12.6	20	CD	BH
	1	12.6	20	EF	GH
14H7	3	12.6	22	AC	DG
	3	12.6	22	FH	EG
14J7	2	12.6	22	BCF	DGH
	2	12.6	32	CDE	FGH
14N7	3	12.6	33	BEF	GH
	2	12.6	26	CD	BH
14Q7	2	12.6	26	EF	GH
	2	12.6	25	CD	GH
14R7	2	12.6	30	BEF	GH
	1	12.6	18	BEF	GH
14S7	1	12.6	50	C	GH
	1	12.6	50	D	GH
14V7	2	12.6	28	CD	GH
	2	12.6	24	BEF	GH
14W7	3	12.6	18	BCF	DGH
	2	12.6	22	BCF	DEGH
14X7	1	12.6	20	BC	DGH
	1	12.6	20	E	DGH
14Y4	2	12.6	24	F	DGH
	(Good = 80)				
15A6 (PL83)	3	12.6	28	C	GH
	3	12.6	28	F	GH
16A5	1	12.6	20	ABFG	CE
17	3	12.6	18	BGJ	CD
	3	12.6	40	BC	DE
19BG6	3	25	20	EHK	CG
	1	25	20	HJ	EG
19C8	1	25	19	A	EG
	1	25	19	F	EG
19J6	1	25	20	B	CE
	2	25	24	AF	CG
	2	25	24	BE	CG
	3	25	25	HJ	ABCEFG

Tube	Type	Fil.	Plate	Top	Bottom
6K8	1	6.3	20	EF	GH
	1	6.3	20	DE	GH
	1	6.3	39	CK	GH
6L5	2	6.3	26	CE	GH
6L6	3	6.3	27	CDE	GH
6L7	2	6.3	56	D	GH
	2	6.3	26	CEK	GH
6M3	2	6.3	26	CDK	AG
	2	6.3	26	EF	AG
6N4	1	6.3	34	H	AG
	2	6.3	24	AEG	BDF
6N5 (6AB5)	1	6.3	37	BC	EF
	4	6.3	0	BD	CEF
Eye CL	4	6.3	0	D	BCEF
6N6	3	6.3	61	DE	CGH
	3	6.3	41	CE	DGH
6N7	3	6.3	29	CD	GH
	3	6.3	29	EF	GH
6N8	1	6.3	22	ABF	CD
	1	6.3	45	G	CD
6P5	1	6.3	45	H	CD
	2	6.3	30	CE	GH
6P7	2	6.3	32	DEK	BH
	3	6.3	70	FG	BH
6Q6	1	6.3	20	CK	GH
	1	6.3	90	E	GH
6Q7	1	6.3	21	CK	GH
	1	6.3	47	D	GH
6R6	1	6.3	47	E	GH
	3	6.3	41	CEK	GH
6R7	3	6.3	37	CK	GH
	1	6.3	33	D	GH
6R8	1	6.3	33	E	GH
	2	6.3	25	B	CE
6S4	2	6.3	30	HJ	EG
	1	6.3	20	A	EG
6S6	1	6.3	20	F	EG
	3	6.3	20	CFJ	BE
6S7	3	6.3	24	ADK	GH
6S8	2	6.3	28	CDK	EGH
	1	6.3	28	FK	BG
6SA7	1	6.3	40	A	BG
	1	6.3	40	D	BG
6SB7Y	1	6.3	40	C	EG
	2	6.3	24	DE	FGH
6SC7	2	6.3	28	CDH	AFG
	2	6.3	22	DE	AFG
6SD7	1	6.3	34	CDH	EFG
	3	6.3	33	BC	FG
6SE7	3	6.3	38	DE	FG
	3	6.3	23	DFH	CEG
6SF5	2	6.3	23	DFH	CEG
	1	6.3	20	CE	BG
6SG7	3	6.3	30	BDF	CG
	1	6.3	40	E	CG
6SH7	3	6.3	19	DFH	CEG
	2	6.3	20	DFH	CEG
6SJ7	2	6.3	27	DFH	CEG
	3	6.3	24	DFH	CEG
6SK7	3	6.3	28	AB	CG
	3	6.3	28	DE	FG
6SL7	2	6.3	26	AB	CG
	2	6.3	26	DE	FG
6SN7	1	6.3	20	BF	CG
	1	6.3	40	D	CG
6SQ7	1	6.3	40	E	CG
	2	6.3	30	BF	CG
6SR7	1	6.3	50	D	CG
	1	6.3	50	E	CG
6SS7	3	6.3	30	DFH	CEG

Tube	Type	Fil.	Plate	Top	Bottom
117Z3	3	110	24	AE	DF
117Z4	3	110	19	E	GH
117Z6	3	110	20	C	DG
	3	110	20	E	GH
502X	1	1.4	35	CDE	G
503X	1	1.4	35	CDE	G
504X	1	1.4	35	CDE	G
520AX	1	1.4	30	ABD	E
521AX	1	1.4	30	ABD	E
807	3	6.3	25	BCK	DE
884 (6Q5)	4	6.3	20	CE	GH
FM1000	1	6.3	20	BE	ACG
	1	6.3	35	DF	ACG
1203	1	6.3	33	D	GH
1273	3	12.6	26	BCF	DGH
1280	3	12.6	26	BCF	DGH
1284	3	12.6	25	BCF	DGH
1603	1	6.3	23	BCK	DEF
1608	3	2.5	24	BC	D
1609	2	1.4	32	BCD	E
1610	3	2.5	28	BCD	E
1612	3	6.3	25	DK	GH
1614	3	6.3	24	CDE	GH
1616	3	2.5	57	K	D
1619	3	2.5	29	CDE	GH
1620	1	6.3	22	CDK	GH
1621	3	6.3	40	CDE	GH
1622	3	6.3	27	CDE	GH
1624	3	2.5	26	BCK	E
1625	3	12.6	25	CDK	FG
1626	3	12.6	32	CE	GH
1629	2	12.6	36	CE	GH
	4	12.6	0	CD	EGH
Eye CL	4	12.6	0	D	CEGH
1631	3	12.6	27	CDE	GH
1632	3	12.6	22	CDE	GH
1633	2	25	28	AB	CG
1634	1	12.6	20	BC	FG
1635	2	6.3	26	CD	EFGH
	2	6.3	26	EF	CDGH
1654	1	1.4	41	K	A
1851	3	6.3	20	CDK	EGH
2050/2051	3	6.3	17	CEF	GH
5516	3	2.5	25	CEK	BG
5618	3	2.5	21	BCDF	AG
5651	4	.75	95	AE	BDG
(Good = 30)					
GL5663	2	6.3	32	AEG	BC
5687	2	6.3	24	AB	CDEF
	2	6.3	24	GJ	BDEF
5691	3	6.3	28	AB	CG
	3	6.3	28	DE	FG
5692	2	6.3	26	AB	CG
	2	6.3	26	DE	FG
5693	2	6.3	27	CDFH	EG
5696	2	6.3	31	AF	BDEG
5722	2	5	47	AF	CD
GL5726	1	6.3	23	G	AD
	1	6.3	23	B	DE
5731	2	6.3	37	D	GH
GL5750	2	6.3	22	AF	BD
	1	6.3	95	EG	D
(Good = 10 on test 2)					
5751	1	6.3	22	AB	CDE
	1	6.3	23	FG	DEH
5763	3	6.3	19	ACFHJ	EG
5814	2	6.3	26	AB	CDE
	2	6.3	28	FG	DEH
GL5814	2	6.3	25	AB	CDE
	2	6.3	25	FG	DEH

Tube	Type	Fil.	Plate	Top	Bottom
6ST7	2	6.3	28	BF	CG
	1	6.3	95	D	CG
6SU7	1	6.3	95	E	CG
	2	6.3	25	DE	ABCFH
6SV7	2	6.3	25	AB	CDEFH
	2	6.3	23	BDF	CH
6SZ7	2	6.3	28	E	CH
	1	6.3	21	BF	CH
	1	6.3	50	D	CH
6T5	1	6.3	50	E	CH
	1	6.3	24	BC	EF
Eye CL	4	6.3	0	BD	CEF
Eye OP	4	6.3	0	D	BCEF
6T6M	2	6.3	22	CDK	GH
6T7	1	6.3	20	CK	GH
	1	6.3	40	D	GH
	1	6.3	40	E	GH

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Tube	Type	Fil.	Plate	Top	Bottom
5823	4	.75	30	A	CG
5845	1	2.5	85	E	ACD
	1	2.5	85	A	CDE
5879	1	6.3	26	AGHJ	CD
5881	3	6.3	20	CDE	BH
5910	1	1.4	26	BCF	AE
5963	2	6.3	25	AB	CDE
	2	6.3	25	FG	DEH
5964	3	6.3	18	AF	CG
	3	6.3	18	BE	CG
GL6005	3	6.3	24	AEFG	BD
GL6137	3	6.3	24	DFH	CEG
7700	1	6.3	20	BCK	DEF
KT66	3	6.3	19	CDE	GH
Z2000	1	6.3	22	BE	CG
	1	6.3	22	AF	CG

\* Tapped filament — See instruction manual.

Part No. 445-1

4-1-63

**STOP**

**STOP**

**HEATH COMPANY**  
**BENTON HARBOR, MICHIGAN**

THE WORLD'S  
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 TEST EQUIPMENT  
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