



**MODEL CA99
ADAPTER**

for use with

MODEL 799

**DYNAMIC MUTUAL CONDUCTANCE
TUBE TESTER**

**IMPORTANT:
NOTE →**

YOU HAVE RECEIVED 2 DATA BOOKLETS WITH YOUR MODEL CA-99 ADAPTER. ONLY ONE IS APPLICABLE TO YOUR TUBE TESTER. IF YOUR MODEL 799 TESTER SERIAL NUMBER BEGINS WITH 355 OR 356, USE THIS BOOKLET AND DISCARD THE WHITE ONE. IF YOUR SERIAL NUMBER BEGINS WITH 345, DISCARD THIS BOOKLET AND USE THE WHITE ONE. TO AVOID POSSIBLE MIXUPS, BE SURE YOU DESTROY THE BOOKLET NOT APPLICABLE TO YOUR 799 TUBE TESTER.

The Model CA-99 Adapter is designed to supplement the Model 799 Tube Tester... It makes possible the testing of recently-added tube types. In addition, it accommodates certain foreign tubes and little-used tubes not sufficiently popular to have been included with the Model 799. Included herein are instructions for installing the CA-99 Adapter, instructions for operating it, and the data for the tubes it covers. This data is brought up to date at regular intervals; thus, with the CA-99, your "Mustang" Tube Tester need never be obsolete.

INSTALLATION INSTRUCTIONS

1. Remove the blank panel from the Model 799 by removing the four screws which retain it. Save the screws, discard the removed panel.
2. Locate the eight-lug terminal strip attached to the calibration mounting bracket inside the Model 799. Note the numbering of the individual lugs as shown in Fig. 1, page 2.

3. Locate the six color-coded leads attached to the CA-99 Adapter.

4. Solder these six leads to the appropriate lugs on the terminal strip according to the following chart:

COLOR-CODED LEADS		TERMINAL STRIP	
FROM MODEL CA-99	Should be Soldered To		LUG NUMBER
Yellow-Orange	.	.	1
Yellow-Black	.	.	3
Yellow-Purple	.	.	4
White-Brown.	.	.	5
Black	.	.	6
Brown	.	.	8

5. After soldering, tuck the leads into the Model 799 and mount the Model CA-99 onto the panel, using the four screws which had secured the discarded panel. Upon completion, the Model 799 should appear as illustrated in Fig. 2, Page 2. Do not lace the six leads.

OPERATING INSTRUCTIONS

1. Testing of tubes with the Model CA-99 Adapter is identical with testing done with the Model 799 Tube Tester with the single exception that control settings data is obtained from the data information contained herein.
2. All other tests and instructions remain unchanged from those in the Model 799.
3. When not using the Model CA-99 Adapter, turn the Adapter Controls as follows: Switch A to the Number One position; Switches B, C and D to the "zero" position. This separates the Adapter circuitry from the circuitry of the Model 799.

SYMBOLS: When the Δ appears in the Notations column follow the instructions below.

Δ Make Leakage Test with:

- a. Leakage switch in position 1.
- b. Rotate Selector D of the Adapter through each of its positions, pausing at each position to check the meter reading. Excess leakage is indicated the same as the normal 799 leakage indication, and the tube should be discarded unless the notation after the symbol Δ allows a leakage exception.
- c. Disregard any momentary leakage that may be due to a voltage discharge on the tube elements and the leakage circuit.

NOTE: THIS DATA IS APPLICABLE TO MODEL CA-99 ADAPTERS FOR USE WITH MODEL 799 TUBE TESTERS HAVING SERIAL NUMBER BEGINNING WITH 355 OR 356.

NOTE: When # appears in socket column use Hickok Adapter SA-1. All other symbols are explained on page 1 of the Model 799 Data Book.

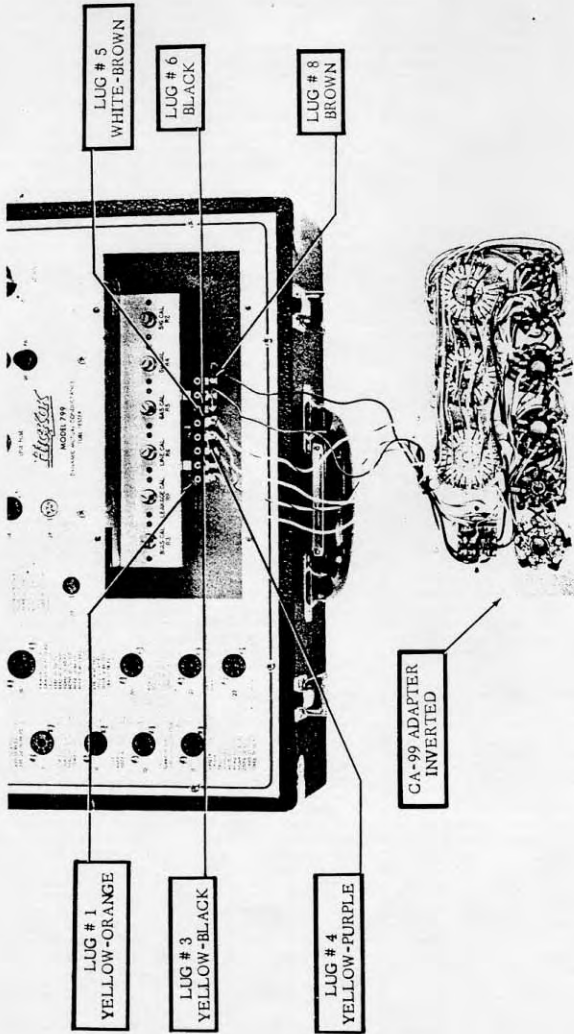


FIG. 1 -- Completed wiring of Model CA-99 Adapter to Model 799 Tube Tester

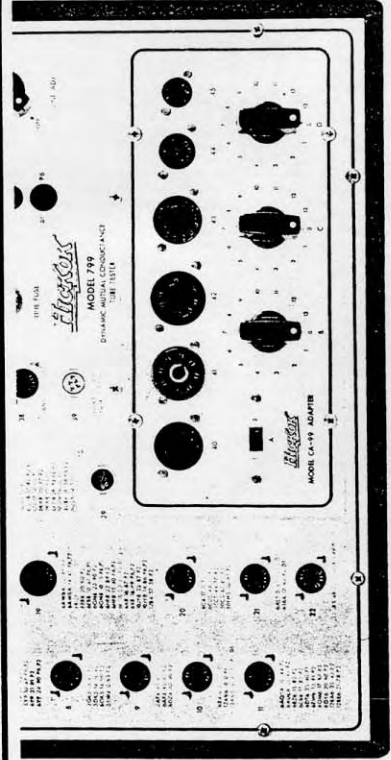


FIG. 2 -- View of lower part of Model 799 Tester panel with Model CA-99 Adapter installed

HICKOK MODEL CA99. TUBE CHART

Tube Type	Color	Htr	Bias	Shunt	Socket	Press	Selectors A B C D Notations	Tube Type	Color	Htr	Bias	Shunt	Socket	Press	Selectors A B C D Notations
OY4	G	OFF	0	40	40	P4	1-0-0-5	2E26	B	6.3	40	60	40	P2	2-5-3-0 ΔCap = P Short 1, 4 & 6
IAB5	B	1.4	20	66	41	P1	2-6-3-2 * Δ Short 7 & 12	2E31	G	1.4	0	0	#	P5	1-3-5-13 Δ
IAB6	G	1.4	0	45	45	P5	1-4-5-13 Δ	2E32	G	1.4	0	0	#	P5	1-3-5-13 Δ 250 Min
IAC5	G	1.1	0	44	#	P5	1-3-5-4 Δ	2E35	G	1.1	0	0	#	P5	1-3-5-13 Δ 250 Min
IAD4	G	1.4	0	40	#	P5	1-4-5-13 Δ	2E36	G	1.1	0	0	#	P5	1-3-5-13 Δ 250 Min
IAD5	G	1.4	0	44	45	P5	1-4-5-13 Δ	2E41	G	1.1	0	43	#	P5	1-4-6-5 Δ
IAF5	G	1.4	0	40	45	P5	1-1-7-12 Δ	2E41	G	1.1	0	43	#	P5	1-4-6-5 Δ
IAG4	G	1.1	0	45	#	P5	1-3-5-4 Δ	2V2	G	2.5	0	32	40	P4	2-6-4-0 Cap = P Short Normal
IAG5	G	1.1	0	45	#	P5	1-4-6-5 Δ	3A4	G	2.5	0	45	45	P5	1-1-7-13 * Δ Short 1, 2, 5, 6 & 7
IAH4	G	1.1	0	45	#	P5	1-3-5-4 Δ	3A5	G	3	0	45	45	P5	1-1-7-6 *
IAH5	G	1.1	0	45	45	P5	1-1-7-6 Δ	3A5	G	3	0	45	45	P5	1-1-7-12 *
IAJ5	G	1.1	0	45	#	P5	1-1-7-12 Δ	3AJ8	G	3	40	60	44	P1	2-2-0-1 Δ Short 3
IAK4	G	1.1	0	10	#	P5	1-4-6-13 Δ 350 Min	3AJ8	G	3	19	10	44	P2	2-9-0-8
IAK5	G	1.1	0	44	45	P5	1-3-5-4 Δ	3AW2	G	3	0	43	43	P3	2-0-0-0 *
IAR5	G	1.4	0	40	45	P5	1-1-7-12 Δ	3B4	G	2.5	0	45	45	P5	1-13-5-1 * Δ Short 2, 5, 6, & 13
IBC2	B	1.1	0	40	44	P4	1-1-13-0 Cap = P	3B7	G	3	10	70	41	P2	2-6-0-7 *
IC3	G	1.4	0	45	45	P5	1-1-7-13 *	3B7	G	3	10	77	41	P1	2-3-0-2 *
IC8	G	1.4	0	35	#	P5	1-4-5-12 * Δ Short 1, 4 & 5	3C2	G	3	0	38	40	P4	2-6-4-0 Cap = P Short Normal
IC21	G	OFF	0	35	40	P4	2-0-0-5 250 Min	3D6	G	1.4	0	34	41	P6, P5	2-0-7-3 Δ Pos. 2 & 3
ID8	B	1.4	65	45	40	P1	2-5-4-3 Δ Short 5	3E6	B	2.5	30	83	41	P1	2-6-3-2 * Short 5, 12 & 13
ID8	G	1.4	15	10	40	P1	2-0-0-6 *	4A6	G	4.3	35	47	40	P1	2-5-0-6 *
ID8	G	1.4	0	40	40	P5	2-0-0-8 *	4A6	G	4.3	10	10	40	P1	2-4-0-3 *
IE7	G	2	48	76	40	P1	2-4-5-8 Δ	4GJ7	G	4.3	17	87	44	P2	2-2-7-6
IF7	B	2	45	30	40	P1	2-0-6-3 Δ Cap = G	4GJ7	B	4.3	32	75	44	P2	2-9-0-8
IF7	G	1	2	0	40	P5	2-0-0-5	4GX7	B	4.3	16	89	44	P2	2-2-7-6 Δ Short 1 & 3
IF7	G	2	0	40	40	P5	2-0-0-6 *	4GX7	G	4.3	13	85	44	P2	2-9-0-8
IG6	G	1.4	14	32	40	P1	2-5-0-6 *	4M-P12	B	4.3	20	77	45	P2	2-1-5-6 Δ Short 2
IG6	G	1.4	20	10	40	P1	2-4-0-3	5A6	B	5	37	35	44	P2	2-7-1-6 * Δ Short 3, 8, 9, 12, & 13
IH5	G	1.4	0	0	40	P1	2-0-0-3	5CR8	B	5	15	83	44	P2	2-2-7-6 Δ Short 3 & 8
IH5	G	1.4	0	40	40	P5	2-0-0-5	5CR8	G	5	20	53	44	P2	2-9-0-1
IH6	G	2	17	30	40	P1	2-6-0-3	5CU4	G	5	0	60	40	P3	1-13-8-6
IH6	G	2	0	40	40	P5	2-0-0-5	5CU4	G	5	0	60	40	P3	1-13-8-4
IJ6	G	2	0	40	40	P5	2-0-0-4								
IJ6	G	2	34	10	40	P1	2-5-0-6 *								
IJ6	G	2	34	10	40	P1	2-4-0-3								
IL4	R	1.4	0	40	45	P5	1-1-7-0 Δ								
IL4	B	1.4	58	30	41	P1	2-6-3-2 Δ								
IL4	B	1.4	58	0	41	P1	2-4-0-5 Δ								
ILB4	B	1.4	65	55	41	P1	2-6-3-2 Δ								

1LB6	B	1.4	15	73	41	P1	2-6-3-4	Δ	5D1/4	R	5	0	60	40	P6, P3	2-1-0-8	Short Normal Pos 2 & 3 Δ Short 1 & 3
1LC5	B	1.4	35	0	41	P1	2-6-3-2	*Δ Short 5, 12 & 13	5GJ7	B	6.3	23	87	44	P2	2-2-7-6	Δ Short 1 & 3
1LC6	G	1.4	53	0	41	P1	2-4-3-5	Δ	5GJ7	G	6.3	32	75	44	P2	2-9-0-8	Δ Short 1 & 3
1LD5	B	1.4	38	10	41	P1	2-6-3-2	Δ 300 Min	5GX7	B	5	16	89	44	P2	2-2-7-6	Δ Short 1 & 3
1LD5	G	1.4	0	35	41	P5	2-0-0-4	Δ	5GX7	G	5	13	85	44	P2	2-9-0-8	Δ Short 1 & 3
1LF3	B	1.4	38	35	41	P1	2-6-0-2	Δ	5HB7	B	5	15	76	44	P2	2-2-7-6	Δ Short 1 & 3
1LG5	B	1.4	38	45	41	P1	2-6-3-2	*Δ Short 5, 12 & 13	5HB7	G	5	10	84	44	P2	2-9-0-8	Δ Short 1 & 3
1LH4	G	1.4	0	0	41	P1	2-6-0-2	Δ 150 Min	5HB7	G	5	10	84	44	P2	2-9-0-8	Δ Short 1 & 3
1LH4	G	1.4	0	35	41	P5	2-0-0-4	Δ	6AC9	B	6.3	25	62	43	P2	2-9-0-8	Δ Short 1 & 3
1LN5	B	1.4	27	60	41	P1	2-6-3-2	*Δ Short 5, 12 & 13	6AC9	B	6.3	0	45	43	P5	2-0-0-2	Eye 1 & 2 Closed
1N5	B	1.4	22	0	40	P1	2-0-4-3	Δ Cap = G	6AC9	B	6.3	0	45	43	P5	2-0-0-3	Eye 2
1N6	B	1.4	50	50	40	P1	2-5-4-3	Δ	6AC10	B	6.3	15	59	43	P2	2-4-8-0	Open
1N6	G	1.4	0	20	40	P5	2-0-0-6	Δ	6AC10	B	6.3	15	59	43	P2	2-7-0-5	Open
1Q6	G	1.4	0	19	#	P3	1-4-5-8	Δ	6AC10	B	6.3	15	59	43	P2	2-7-0-5	Open
1Q6	G	1.4	0	35	#	P5	1-4-5-6	Δ	6AD4	B	6.3	0	40	#	P5	2-11-0-2	Open
1R4	G	1.4	0	40	41	P5	2-0-0-4	Δ	6AD6	R	6.3	0	100	40	P2	1-3-8-8	Open
1S5	G	1.4	0	44	45	P5	1-1-7-6	Δ	6AD6	R	6.3	0	100	40	P2	2-0-8-0	Open
1S5	G	1.4	0	40	45	P5	1-1-7-12	Δ	6AD6	R	6.3	0	100	40	P2	2-3-8-0	Open
1SA6	B	1.4	36	75	40	P1	2-4-6-8	Δ	6AD6	R	6.3	0	100	40	P2	2-4-8-0	Open
1SB6	B	1.4	33	50	40	P1	2-8-4-3	Δ	6AD6	R	6.3	0	100	40	P2	2-4-8-0	Open
1SB6	G	1.4	0	45	40	P5	2-0-0-5	Δ	6AD6	R	6.3	0	100	40	P2	2-4-8-0	Open
1U6	R	1.4	0	40	45	P5	1-1-7-0	Δ	6AD6	R	6.3	0	100	40	P2	2-4-8-0	Open
1V5	R	1.4	0	45	#	P5	1-4-5-0	Δ	6AD7	B	6.3	15	89	40	P1	2-5-4-3	Open
1V6	G	1.1	0	45	#	P5	1-4-12-3	Δ	6AD7	G	6.3	40	30	40	P1	2-1-0-6	Open
1V6	G	1.1	0	44	#	P5	1-4-12-5	Δ	6AE6	G	6.3	10	10	40	P1	2-5-0-4	Open
1W5	R	1.4	0	45	#	P5	1-4-5-0	Δ	6AE6	G	6.3	10	10	40	P1	2-5-0-4	Open
2A4	G	2.5	0	63	40	P3	2-0-0-3	Δ	6AE7	G	6.3	35	83	40	P6, P1	2-6-5-3	Open
2AC15	G	2	0	40	40	P5	2-0-0-5	Δ	6AE7	G	6.3	35	83	40	P6, P1	2-6-5-3	Open
2AS15	G	2	0	40	40	P5	2-0-0-5	Δ	6AF6	R	6.3	0	100	40	P2	2-0-8-0	Open
2B22	G	6.3	0	45	40	P5	2-0-0-0	Cap = P	6AF6	R	6.3	0	100	40	P2	2-3-8-0	Open
2BA2	G	2	0	40	44	P4	2-1-0-9	Δ	6AF6	R	6.3	0	100	40	P2	2-4-8-0	Open
2C4	G	2.5	0	44	45	P3	1-1-7-5	Δ	6AF6	R	6.3	0	100	40	P2	2-4-8-0	Open
2C26A	G	6.3	10	83	40	P1	2-0-0-0	Δ	6AF6	R	6.3	0	100	40	P2	2-4-8-0	Open
2C51	G	6.3	0	46	44	P5	1-1-9-3	Δ	6AH7	G	6.3	0	45	40	P5	1-12-8-5	Open
2C51	G	6.3	0	46	44	P5	1-1-9-7	Δ	6AH7	G	6.3	0	45	40	P5	1-12-8-1	Open
2D21	G	6.3	0	63	45	P3	2-0-0-6	Δ Short 2, 5 & 7	6AJ4	G	6.3	0	45	44	P5	1-7-8-13	Open
2DF4	G	2.5	10	82	44	P6, P2	2-8-7-1	*Δ Short 2, 7, 9, 12, & 13	6AK4	G	6.3	0	47	#	P5	1-3-6-1	Open
2E24	G	6.3	55	90	40	P1	2-5-0-3	*Δ Cap = P	6AJ8	G	6.3	40	60	44	P1	2-2-0-1	Open
2E25	G	6.3	40	10	40	P2	2-5-0-4	Δ Cap = P	6AJ8	G	6.3	19	10	44	P2	2-9-0-8	Open

HICKOK MODEL CA99 A TUBE TUBE CHART

Tube Type	Color	Htr	Bias	Shunt	Socket	Press	Selectors A B C D	Notations	Tube Type	Color	Htr	Bias	Shunt	Socket	Press	Selectors A B C D	Notations
6AL7	R	6.3	Vary	100	40	P2	2-4-1-8	Bias Right Controls Pattern	6CM5	G	6.3	65	53	40	P6, P2	2-5-1-4	Cap = P Δ Short 1, 3 & 8 Δ Short 3 & 8
6AL7	R	6.3	Vary	100	40	P2	2-5-1-8	Bias Controls Both Patterns	6CR8	B	6.3	15	83	44	P2	2-2-7-6	2-9-0-1 2-0-0-7 2-1-0-2
6AL7	R	6.3	Vary	100	40	P2	2-6-1-8	Bias Controls Left Pattern	6DA5	R	6.3	100	100	44	P2	2-1-7-2	Screen ON Screen OFF
6AM4	G	6.3	0	0	44	P5	1-12-8-13		6DL4	G	6.3	0	40	44	P5	2-0-0-8	
6AN6	G	6.3	0	45	45	P5	1-1-7-5		6DT4	R	6.3	0	100	40	P3	1-12-8-3	
6AN6	G	6.3	0	45	45	P5	1-1-7-12		6DZ7	G	6.3	30	85	40	P2	2-1-5-4	Δ Short 8
6AN6	G	6.3	0	45	45	P5	1-1-7-13		6EA4	G	6.3	0	43	43	P5	2-0-0-6	Cap = P
6AN6	G	6.3	0	45	45	P5	1-1-7-2		6F8	G	6.3	10	89	40	P1	2-5-0-6	Cap = G
6AR6	G	6.3	0	45	45	P5	1-6-8-1		6GA7	B	6.3	60	10	43	P2	2-0-0-3	
6AW7	R	6.3	0	40	40	P4	1-8-12-6		6GA7	G	6.3	0	63	43	P3	2-4-2-3	
6AW7	G	6.3	0	45	40	P5	1-8-12-4		6GE8	B	6.3	19	45	44	P2	2-0-0-11	Δ Short 2 & 7
6AX6	G	6.3	0	63	40	P3	2-0-0-5		6GE8	G	6.3	65	42	44	P2	2-3-0-6	
6AZ5	G	6.3	0	63	40	P3	2-0-0-3		6GJ7	B	6.3	17	87	44	P2	2-2-7-6	
6AZ5	G	6.3	0	45	#	P5	1-3-6-8		6GJ7	G	6.3	32	75	44	P2	2-9-0-8	
6AZ6	G	6.3	0	45	#	P5	1-3-6-1		6GM8	G	6.3	0	45	44	P5	2-0-0-6	
6AZ6	G	6.3	0	48	#	P5	1-3-6-12		6GM8	G	6.3	0	45	44	P5	2-0-0-1	Δ Short 6 & 8
6B6	G	6.3	10	10	40	P1	2-0-0-3	Cap = G 300 Min	6GV7	B	6.3	24	83	44	P2	2-7-3-2	
6B6	G	6.3	0	45	40	P5	2-0-0-5		6GV7	B	6.3	35	20	44	P2	2-9-0-1	Δ Short 1 & 3
6B6	G	6.3	0	45	40	P5	2-0-0-4		6GX7	G	6.3	13	85	44	P2	2-9-0-8	Screen OFF Short Pos. 1
6B8	B	6.3	30	81	40	P1	2-0-3-6	Δ Cap = G Short 8	6GX8	B	6.3	100	100	44	P2	2-8-7-6	Screen ON
6B8	G	6.3	0	40	40	P5	2-0-0-5		6GX8	B	6.3	0	45	44	P5	2-0-0-2	
6BA5	G	6.3	0	46	#	P5	1-3-6-1	Δ Short 8	6GX8	R	6.3	0	48	44	P5	2-0-0-7	*
6BE7	B	6.3	20	42	44	P2	2-7-1-6	Δ Short 3 & 8	6GX8	R	6.3	15	46	44	P2	2-3-0-9	
6BFW	G	6.3	0	44	#	P5	1-3-6-8		6GX8	G	6.3	0	45	40	P5	1-12-13-4	
6BFW	G	6.3	0	44	#	P5	2-0-0-1		6H6	G	6.3	0	45	40	P5	2-0-0-5	
6BF8	G	6.3	0	45	44	P3	2-0-0-2		6HB7	B	6.3	15	76	44	P2	2-2-7-6	Δ Short 1 & 3
6BF8	G	6.3	0	45	44	P3	2-0-0-3		6HB7	G	6.3	10	84	44	P2	2-9-0-8	*
6BF8	G	6.3	0	45	44	P3	2-0-0-7		6HE7	G	6.3	62	47	43	P2	2-9-11-5	Δ Short 4, 8, 12 & 13
6BF8	G	6.3	0	45	44	P3	2-0-0-8		6HE7	G	6.3	0	61	43	P3	2-0-10-2	
6BF8	G	6.3	0	45	44	P5	2-0-0-9										
6BG7	G	6.3	0	44	#	P5	1-3-6-8-1										
6BG7	G	6.3	0	44	#	P5	1-3-6-8-1										

6BH11	B	6.3	17	80	43	P2	2-8-9-10	ΔShort 2, 5 & 11	6HU8 6HU8	B	6.3	25	81	44	P2	2-6-9-8 2-2-1-3 ΔShort 7
6BH11	G	6.3	11	85	43	P2	2-6-0-7		6HW8	B	6.3	25	81	44	P2	2-6-3-2 ΔShort 7
6BH11	G	6.3	11	85	43	P2	2-4-0-3		6HW8	B	6.3	10	57	44	P2	2-6-3-2 ΔShort 7
6BJ5	B	6.3	10	87	45	P2	2-1-7-5	ΔShort 2 & 6	6J8	G	6.3	40	40	P1	2-0-0-4 Cap = G ΔShort 8	
6BK8	B	6.3	20	83	44	P1	2-9-1-6	ΔShort 2, 3 & 7	6J8	G	6.3	40	40	P1	2-5-0-6 2-7-0-8 2-9-0-6	
6BL4	R	6.3	0	100	40	P3	1-8-12-3		6J9	B	6.3	15	54	44	P2	2-9-0-6
6BN5	G	6.3	45	79	44	P1	2-2-1-9	ΔShort 1, 2, 3, 6 & 8	6J9	B	6.3	15	54	44	P2	2-2-0-1 2-2-0-1
6BN11	B	6.3	19	81	43	P2	2-7-9-11	ΔShort 2 & 8	6JF8	B	6.3	0	15	40	P3	1-1-12-4 Cap = P ΔShort 6 & 13
6BN11	B	6.3	19	81	43	P2	2-3-4-5	ΔShort 2 & 8	6JF8	B	6.3	0	63	40	P3	1-1-12-8 Cap = P ΔShort 2, 4 & 10
6BR5	B	6.3	100	100	44	P4	2-1-7-2	Screen OFF	6JN6	B	6.3	55	43	43	P2	2-11-3-7 ΔShort 2, 4 & 10
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen Pos. 1 or 1 & 3	6JS6	B	6.3	0	23	40	P5	2-0-3-11 Cap = P ΔShort 7
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen on for Tubes Short on 1 & 3	6KH8	G	6.3	47	10	44	P1	2-2-6-9 ΔShort 7
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen on for Tubes Short on 1 & 3	6LE8	B	6.3	34	75	44	P2	2-9-8-6 ΔShort 3
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen on for Tubes Short on 1 & 3	6LE8	B	6.3	34	75	44	P2	2-9-8-1 ΔShort 3
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen on for Tubes Short on 1 & 3	6LR8	B	6.3	45	60	42	P2	2-2-7-6 ΔShort 1 & 3
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen on for Tubes Short on 1 & 3	6LR8	B	6.3	17	55	42	P2	2-9-0-8 2-9-1-0 2-0-0-6
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen on for Tubes Short on 1 & 3	6LT8	G	6.3	0	63	44	P3	2-0-0-8 2-0-0-8
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen on for Tubes Short on 1 & 3	6LT8	G	6.3	0	63	44	P3	2-0-0-8 2-0-0-8
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen on for Tubes Short on 1 & 3	6LUR8	G	6.3	45	60	43	P2	2-10-0-2 2-13-8-1 2-6-0-3 2-8-0-2 2-9-0-1 2-0-0-9 2-1-7-5 2-5-0-6 2-4-0-3 1-13-3-5
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen on for Tubes Short on 1 & 3	6LUR8	G	6.3	17	55	43	P2	2-10-0-2 2-13-8-1 2-6-0-3 2-8-0-2 2-9-0-1 2-0-0-9 2-1-7-5 2-5-0-6 2-4-0-3 1-13-3-5
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen on for Tubes Short on 1 & 3	6LUR8	G	6.3	17	55	43	P2	2-10-0-2 2-13-8-1 2-6-0-3 2-8-0-2 2-9-0-1 2-0-0-9 2-1-7-5 2-5-0-6 2-4-0-3 1-13-3-5
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen on for Tubes Short on 1 & 3	6LUR8	G	6.3	17	55	43	P2	2-10-0-2 2-13-8-1 2-6-0-3 2-8-0-2 2-9-0-1 2-0-0-9 2-1-7-5 2-5-0-6 2-4-0-3 1-13-3-5
6BR5	B	6.3	100	100	44	P4	2-1-8-2	Screen on for Tubes Short on 1 & 3	6LUR8	G	6.3	17	55	43	P2	2-10-0-2 2-13-8-1 2-6-0-3 2-8-0-2 2-9-0-1 2-0-0-9 2-1-7-5 2-5-0-6 2-4-0-3 1-13-3-5
6BR5	B	6.3	100	100	44	P4	2-1-8-									

HICKOK MODEL CA99 TUBE CHART

Tube Type	Color	Htr	Bias	Shunt	Socket	Press	Selectors A B C D	Notations	Tube Type	Color	Htr	Bias	Shunt	Socket	Press	Selectors A B C D	Notations
6R-P22	R	6.3	30	84	44	P6, P2	1-2-9-1 1-12-8-6	Cap = G 300 Min	8BM8	B	7.5	20	75	43	P2	2-11-9-7 2-6-3-2	Δ Short 5 & 10 Δ Short 5 & 10
6S8	G	6.3	10	45	40	P1	1-12-8-3 1-12-8-4		8BM8	B	7.5	20	79	43	P2	2-8-9-10 2-6-0-7	
6S8	G	6.3	0	40	40	P5	1-12-8-1 1-12-8-4		8BU8	B	7.5	21	76	43	P2	2-4-0-3 2-2-7-6	
6SF7	G	6.3	0	15	40	P5	1-12-8-4 Δ Short 3		8BU8	B	7.5	15	81	43	P2	2-2-7-6 2-2-7-6	
6SF7	G	6.3	0	40	40	P5	1-12-8-5 Δ Short 3		8GJ7	G	7.5	17	87	44	P2	2-2-7-6 2-2-7-6	
6SV7	G	6.3	0	37	40	P5	1-12-8-5 Δ Short 3		8GJ7	G	7.5	32	75	44	P2	2-2-7-6 2-2-7-6	
6SV7	G	6.3	0	45	40	P5	1-12-8-5 Cap = G		8GX7	B	7.5	16	89	44	P2	2-2-7-6 2-2-7-6	
6T7	G	6.3	17	28	40	P1	2-0-0-3 2-0-0-5		8GX7	G	7.5	13	85	44	P2	2-9-0-8 2-9-0-8	
6T7	G	6.3	0	40	40	P5	2-0-0-4 2-0-0-4		8LE8	B	7.5	34	75	44	P2	2-9-0-8 2-9-0-8	
6V7	G	6.3	36	73	40	P1	2-0-0-5 2-0-0-5	Cap = G	8LE8	B	7.5	34	75	44	P2	2-9-0-8 2-9-0-8	
6V7	G	6.3	0	40	40	P5	2-0-0-4 2-0-0-4		8LT8	B	7.5	17	87	44	P2	2-9-0-8 2-9-0-8	
6V8	G	6.3	17	10	44	P1	2-0-6-1 2-0-0-7		8LT8	G	7.5	0	63	44	P3	2-11-9-7 2-11-9-7	
6V8	G	6.3	0	45	44	P5	2-0-0-9 2-0-0-9		9BJ11	B	10	11	89	43	P2	2-6-3-2 2-6-3-2	
6V8	G	6.3	0	45	44	P5	2-0-0-2 2-0-0-2		9BJ11	B	10	17	85	43	P2	2-6-3-2 2-6-3-2	
6Y10	B	6.3	27	82	43	P2	2-3-6-7 Δ Short 2 & 9		9K6	B	7.5	20	88	44	P2	2-9-0-8 2-9-0-8	
6Y10	B	6.3	27	40	43	P2	2-6-0-2 2-6-3-2		10LE8	B	10	34	75	44	P2	2-9-0-8 2-9-0-8	
7A4	G	6.3	20	88	41	P1	2-6-0-2 2-6-3-2		10LE8	B	10	34	75	44	P2	2-9-0-8 2-9-0-8	
7A5	B	6.3	40	48	41	P2	2-0-0-6 2-0-0-6		11BT11	B	10	29	93	43	P2	2-5-0-7 2-3-0-9	
7A6	G	6.3	0	45	41	P5	2-0-0-3 2-0-0-3		11BT11	B	10	14	48	43	P2	2-3-0-9 2-3-0-9	
7A7	B	6.3	39	82	41	P1	2-0-0-4 2-0-0-4		12AH7	G	12.6	0	45	40	P5	1-12-8-1 1-12-8-1	
7A7	G	6.3	0	45	41	P5	2-0-0-4 2-0-0-4		12AH7	G	12.6	40	60	44	P1	2-2-0-1 2-2-0-1	
7AB7	G	6.3	0	35	41	P5	1-2-13-12 Δ Short 2 4, 6, 7, & 13		12AJ7	G	12.6	19	10	44	P2	2-9-0-8 2-9-0-8	
7AD7	B	6.3	19	86	41	P2	2-6-3-2 2-5-0-6		12B8	B	12.6	45	58	40	P1	2-0-3-4 2-0-3-4	
7AF7	G	6.3	35	83	41	P1	2-4-0-3 2-4-0-3		12C8	B	12.6	30	81	40	P1	2-0-3-6 2-0-3-6	
7AF7	G	6.3	35	83	41	P1	2-6-3-2 2-6-3-2		12C8	G	12.6	0	40	40	P5	2-0-0-5 2-0-0-5	
7AF7	B	6.3	10	75	41	P2	2-6-3-2 2-6-3-2		12C8	B	12.6	0	40	40	P5	2-0-0-5 2-0-0-5	
7AJ7	B	6.3	10	65	41	P2	2-6-3-2 2-6-3-2		12EC8	G	12.6	0	45	44	P5	2-0-0-2 2-0-0-2	
7AK7	B	6.3	29	72	41	P2	2-6-3-2 2-6-3-2		12EC8	G	12.6	0	45	44	P5	2-0-0-5 2-0-0-5	
7B4	G	6.3	0	0	41	P1	2-6-3-2 2-6-3-2		12EC8	G	12.6	0	45	44	P5	2-0-0-5 2-0-0-5	
7B5	B	6.3	40	88	41	P1	2-3-0-2 2-3-0-2	300 Min	12G-K17	G	12.6	0	63	40	P3	2-0-0-5 2-0-0-5	
7B6	G	6.3	10	10	41	P1	2-0-0-6 2-0-0-6		12H6	G	12.6	0	45	40	P5	2-0-0-5 2-0-0-5	
7B6	G	6.3	0	45	41	P5	2-0-0-5 2-0-0-5		12H6	G	12.6	0	45	40	P5	2-0-0-5 2-0-0-5	
7B7	B	6.3	35	80	41	P1	2-6-3-2 2-6-3-2	Δ Short 7	12HE7	B	12.6	62	47	43	P2	2-9-11-5 2-9-11-5	*Δ Short 4, 8, 12 & 13
7B8	B	6.3	55	63	41	P1	2-4-5-3 2-0-0-4		12HE7	G	12.6	0	61	43	P3	2-0-10-2 2-0-10-2	
7C4	G	6.3	0	45	41	P5	2-0-0-4 2-0-0-4		12HG7	B	12.6	24	90	44	P2	2-2-8-7 2-2-8-7	

7C5	B	6.3	30	45	41	P2	2-6-3-2	Δ Short 7	12HU8	B	12.6	25	81	44	P2	2-6-9-8	Δ Short 7
7C6	G	6.3	0	45	41	P1	2-3-0-2	200 Min	12HUN6	B	12.6	25	81	44	P2	2-2-1-3	Δ Short 7
7C7	G	6.3	0	45	41	P5, P3	2-0-0-6			B	12.6	55	43	43	P2	2-11-3-7	Δ Short 2, 4 & 10
7E6	B	6.3	31	83	41	P1	2-6-3-2	Δ Short 7	12L8	G	12.6	0	43	40	P5, P3	1-6-12-1	Δ Short 13
7E6	G	6.3	23	0	41	P2	2-3-0-2	400 Min	12L8	G	12.6	10	40	40	P5, P3	1-6-12-3	Cap = G
7E6	G	6.3	0	40	41	P5, P3	2-0-0-5		12Q7	G	12.6	0	40	40	P5, P3	2-0-0-5	
7E7	G	6.3	38	67	41	P1	2-6-5-2	Δ Short 7	12Q7	G	12.6	0	40	40	P5, P3	2-0-0-4	Cap = G
7E7	B	6.3	0	40	41	P5, P3	2-0-0-4		12S8	G	12.6	10	45	40	P1	1-12-8-6	300 Min
7F7	G	6.3	10	10	41	P1	2-5-0-3		12S8	G	12.6	0	40	40	P5, P3	1-12-8-3	
7F7	G	6.3	10	10	41	P1	2-4-0-3		12S8	G	12.6	0	40	40	P5, P3	1-12-8-4	
7F8	R	6.3	0	45	41	P3	1-2-7-4		12S8	G	12.6	0	40	40	P5, P3	1-12-8-1	Δ Short 3
7F8	R	6.3	0	45	41	P3	1-2-7-5		12SF7	G	12.6	0	15	40	P3	1-12-8-4	
7G7	B	6.3	37	41	41	P2	2-6-3-2	Δ Short 7	12SF7	G	12.6	0	40	40	P5, P3	1-12-8-5	Cap = P
7G8	G	6.3	32	90	41	P1	2-4-5-3	Δ Short 6	13CM5	G	12.6	65	53	40	P6, P2	2-5-1-4	Δ Short 1, 3 & 8
7GV7	B	7.5	24	83	44	P2	2-7-3-2	Δ Short 6 & 8	13V10	B	12.6	42	50	43	P2	2-8-10-11	Δ Short 2 & 9
7GV7	B	7.5	35	20	44	P2	2-9-0-1		13V10	B	12.6	26	20	43	P2	2-3-6-7	Δ Short 2 & 9
7H7	G	6.3	19	45	41	P1	2-4-3-2	Δ Short 7	14A4	G	12.6	20	88	41	P1	2-6-0-2	
7J7	B	6.3	10	74	41	P1	2-6-5-2		14A5	B	12.6	30	0	41	P2	2-6-3-2	Δ Short 7
7J7	B	6.3	50	51	41	P1	2-4-0-3		14A7	B	12.6	39	82	41	P1	2-6-3-2	Δ Short 7
7K7	G	6.3	0	13	41	P1	2-0-0-5		14A7	G	12.6	35	83	41	P1	2-3-0-6	
7K7	G	6.3	0	42	41	P5	2-0-0-6	Δ Short 7	14AF7	G	12.6	35	83	41	P1	2-4-0-3	300 Min
7L7	B	6.3	24	0	41	P2	2-6-3-2		14AF7	G	12.6	10	10	41	P1	2-3-0-2	
7N7	G	6.3	20	89	41	P1	2-5-0-6		14B6	G	12.6	0	45	41	P5	2-0-0-6	
7Q7	G	6.3	45	82	41	P1	2-4-0-3	Δ Short 7	14B6	G	12.6	0	45	41	P5	2-0-0-6	
7Q7	G	6.3	30	84	41	P1	2-6-5-2	Δ Short 7	14B6	G	12.6	55	63	41	P1	2-4-5-3	Δ Short 7
7R7	B	6.3	0	30	41	P5	2-0-0-4		14B8	B	12.6	27	90	43	P2	2-11-10-2	Δ Short 2, 6 & 8
7R7	G	6.3	0	30	41	P1	2-6-0-5	Δ Short 7	14BL11	B	12.6	13	56	43	P2	2-5-0-7	
7S7	G	6.3	30	77	41	P1	2-4-0-3		14BL11	B	12.6	23	56	43	P2	2-3-0-9	
7S7	G	6.3	30	75	41	P1	2-6-3-2	Δ Short 7	14BR11	B	12.6	24	85	43	P2	2-2-3-11	Δ Short 4, 5 & 7
7T7	B	6.3	12	66	41	P2	2-6-3-2	Δ Short 7	14BR11	B	12.6	20	24	43	P2	2-10-0-9	
7V7	B	6.3	23	75	41	P2	2-6-3-2	Δ Short 7	14BR11	B	12.6	15	58	43	P2	2-8-0-6	
7W7	B	6.3	23	75	41	P2	2-6-3-2	Δ Short 7	14C5	B	12.6	30	45	41	P2	2-8-3-2	Δ Short 7
7X6	G	6.3	0	45	41	P3	2-0-0-6	300 Min	14C7	B	12.6	31	83	41	P1	2-6-3-2	Δ Short 7
7X6	G	6.3	0	45	41	P3	2-0-0-3		14E6	G	12.6	23	0	41	P2	2-3-0-2	400 Min
7X7	G	6.3	0	45	41	P5	2-0-0-5		14E6	G	12.6	0	40	41	P5	2-0-0-6	
7X7	G	6.3	0	45	41	P5	2-0-0-6		14E6	G	12.6	0	40	41	P5	2-0-0-5	
7Y4	G	6.3	0	30	41	R3	2-0-0-3		14E6	G	12.6	38	67	41	P1	2-8-5-2	Δ Short 7
7Y4	G	6.3	0	30	41	P8	2-0-0-3		14E7	G	12.6	0	40	41	P5	2-0-0-4	
7Z4	G	6.3	0	30	41	R3	2-0-0-6		14E7	G	12.6	0	40	41	P5	2-0-0-3	
7Z4	G	6.3	0	30	41	R3	2-0-0-3		14F7	G	12.6	10	10	41	P1	2-5-0-6	
8AC9	B	7.5	25	62	43	P5, P2	2-9-10-11	Δ Short 3, 4 & 8	14F7	G	12.6	10	10	41	P1	2-4-0-3	
8AC9	B	7.5	0	45	43	P5	2-0-0-2		14F7	R	12.6	0	45	41	P5	1-2-7-4	
8AC9	B	7.5	0	45	43	P5	2-0-0-3		14F8	R	12.6	0	45	41	P5	1-2-7-5	

Tube Type	Color	Htr	Bias	Shunt	Socket	Press	Selectors A B C D	Notations	Tube Type	Color	Htr	Bias	Shunt	Socket	Press	Selectors A B C D	Notations
14H7	B	12.6	19	45	41	P2	2-6-3-2	Δ Short 7	28D7	G	25	0	48	41	P5	2-0-0-3	Δ Short 6
14J7	G	12.6	10	74	41	P1	2-4-0-0	Δ Short 7	31J56A	B	25	0	23	43	P3	2-0-3-11	Cap = P
14J7	B	12.6	40	50	41	P1	2-6-5-2	Δ Short 7	32L7	B	35	50	30	40	P2	2-5-4-3	Δ Short 1 & 8
14JG8	B	12.6	7	35	44	P1	2-8-0-9		32L7	G	35	0	63	40	P3	2-0-0-6	Δ Short 2, 4 & 10
14JG8	B	12.6	0	45	44	P5	2-0-0-2		33J76	B	35	65	75	43	P2	2-11-3-7	Δ Short 7
14JG8	B	12.6	0	45	44	P5	2-0-0-2		35A5	B	35	54	45	41	P2	2-6-3-2	Δ Short 7
14N7	G	12.6	20	89	41	P1	2-4-0-3		35Y4	G	35	0	63	41	P3	2-0-4-2	Δ Short 7
14N7	G	12.6	20	89	41	P1	2-4-0-3	Δ Short 7	35Z3	G	35	0	63	41	P3	2-0-0-2	
14Q7	G	12.6	45	82	41	P1	2-6-5-2	Δ Short 7	35Z6	G	35	0	100	40	P3	2-0-0-3	
14R7	B	12.6	30	84	41	P1	2-0-0-4		35Z6	G	35	0	100	40	P3	2-0-0-3	
14R7	G	12.6	0	30	41	P5	2-0-0-3		38E7	B	35	65	47	43	P2	2-9-11-5	*Δ Short 4, 8, 12 & 13
14R7	G	12.6	0	30	41	P5	2-0-0-3	Δ Short 7	38E7	G	35	0	100	43	P3	2-0-10-2	
14S7	G	12.6	30	77	41	P1	2-4-0-3		38H7	B	35	77	58	43	P2	2-9-11-5	*Δ Short 4, 8, 12 & 13
14S7	G	12.6	30	75	41	P1	2-4-0-3		38H7	B	35	0	100	43	P3	2-0-0-2	
14V7	B	12.6	23	75	41	P2	2-6-3-2	Δ Short 7	38H7	B	35	0	100	43	P3	2-0-0-2	
14V7	B	12.6	23	75	41	P2	2-6-3-2	Δ Short 7	50A5	B	50	50	62	41	P2	2-6-3-2	Δ Short 7
14X7	G	12.6	0	0	41	P1	2-3-0-2	300 Min	50AX6	G	50	0	63	40	P3	2-0-0-5	
14X7	G	12.6	0	45	41	P5	2-0-0-6		50AX6	G	50	0	63	40	P3	2-0-0-3	
14Y4	G	12.6	0	45	41	P5	2-0-0-6		50Y6	G	50	0	63	40	P3	2-0-0-3	
14Y4	G	12.6	0	30	41	P3	2-0-0-3		50Y6	G	50	0	100	40	P3	2-0-0-8	Cap = P
14Y4	G	12.6	0	30	41	P3	2-0-0-3	Δ Short 3									
15LE8	B	12.6	34	75	44	P2	2-9-8-1	Δ Short 3									
15LE8	B	12.6	34	75	44	P2	2-9-8-1	Δ Short 3									
16KA6	G	17	69	48	43	P2	2-0-5-3	Cap = P									
								Short 4, 10 & 11									
17M6	B	17	55	43	43	P2	2-5-3-0	Cap = P	50X6	G	50	0	45	41	P3	2-0-0-6	
								10 & 11	50Y6	G	50	0	45	41	P3	2-0-0-3	
								Δ Short 2, 4 & 10	50Y6	G	50	0	60	40	P3	2-0-0-5	
17JN6	B	17	55	43	43	P2	2-11-3-7	Δ Short 2, 4 & 10	50Y7	G	50	0	60	40	P3	2-0-0-3	
19AJ8	G	20	40	60	44	P1	2-2-0-1	Δ Short 3	50Z6	G	50	0	100	40	P3	2-0-0-3	
19AJ8	G	20	19	10	44	P2	2-9-0-8		50Z6	G	50	0	100	40	P3	2-0-0-5	
19BR5	B	20	100	100	44	P4	2-1-7-2	Screen	50Z7	G	50	0	60	40	P3	2-0-0-6	
								OFF	50Z7	G	50	0	60	40	P3	2-0-6-3	
								Short on Pos.1 or Pos.1 & 3	70L7	B	75	45	67	40	P2	2-5-4-3	Δ Short 1 & 6
								Screen	70L7	G	75	0	63	40	P3	2-0-0-8	
19BR5	B	20	100	100	44	P4	2-1-8-2	Screen ON for tubes with Short on Pos.1 & 3	117L7	B	117	43	57	40	P2	2-4-5-6	Δ Short 1 & 8
								Screen ON for tubes with Short on Pos.1 & 3	117L7	B	117	0	63	40	P3	2-0-0-6	
								Screen ON for tubes with Short on Pos.1 & 3	117M7	B	117	43	57	40	P2	2-4-5-6	Δ Short 1 & 8
19BR5	B	20	100	100	44	P4	2-1-6-2	Screen ON for tubes with Short on Pos.1 & 3	117M7	B	117	0	63	40	P3	2-0-0-6	
								Screen ON for tubes with Short on Pos.1 & 3	117Z6	G	117	0	100	40	P3	2-0-0-3	
								Screen ON for tubes with Short on Pos.1 & 3	117Z6	G	117	0	100	40	P3	2-0-0-5	
								Screen ON for tubes with Short on Pos.1 & 3	403A	B	6.3	27	48	45	P2	2-1-6-5	Δ Short 2 & 7

[illegible]

HICKOK MODEL CA99 PTER TUBE CHART

Tube Type	Color	Hir	Bias	Shunt	Socket	Press	Selectors A B C D	Notations	Tube Type	Color	Hir	Bias	Shunt	Socket	Press	Selectors A B C D	Notations
5670	G	6.3	0	45	44	P5	1-1-9-3		6205	G	6.3	0	45	#	P5	1-3-6-1	Δ Short 8 & 13
5670	G	6.3	0	45	44	P5	1-1-9-7	Δ	6206	G	6.3	0	47	#	P5	1-3-6-12	Δ Short 4, 8 & 13
5672	G	1.1	0	45	#	P5	1-3-5-4		6221	G	6.3	0	45	#	P5	1-3-6-1	
5676	G	1.1	0	45	#	P5	1-13-4-1	*	6222	G	6.3	0	45	#	P5	1-3-6-1	
5677	G	1.1	0	0	#	P5	1-13-4-1	*	6223	G	6.3	0	45	#	P5	1-3-6-1	
5678	G	1.1	0	45	#	P5	1-3-5-4	Δ	6225	G	6.3	0	45	#	P5	1-3-6-1	Δ Short 4, 8 & 13
5686	B	6.3	15	35	44	P2	2-2-6-9	*	6245	R	6.3	0	45	#	P5	1-3-6-1	Δ Short 4, 8 & 13
5687	G	12.6	36	73	44	P2	2-2-7-0-9		6247	R	6.3	0	45	#	P5	1-3-6-5	
5687	G	12.6	36	73	44	P6, P2	1-6-12-5		6267	B	6.3	20	83	44	P1	2-9-1-6	Δ Short 2, 3 & 7
5690	G	6.3	0	63	40	P3	1-13-3-3		6293	B	6.3	66	10	40	P2	2-5-3-0	Cap = P Δ Short 1, 4 & 6
5694	G	6.3	15	77	40	P1	2-5-0-6		6360	G	12.6	50	30	44	P2	2-3-1-7	*Δ Short 2 & 12
5696	G	6.3	0	63	45	P3	2-4-0-3	Δ Short 2, 5 & 7	6375	G	1.4	0	45	#	P5	1-4-5-8	
5702	G	6.3	0	45	#	P5	1-3-4-12	Δ Short 6	6384	R	6.3	0	36	40	P3	1-6-8-1	
5703	G	6.3	0	45	#	P3	1-3-4-1	*	6385	G	6.3	0	40	44	P5	1-1-9-12	
5704	G	6.3	0	45	#	P5	1-13-3-1		6385	G	6.3	0	40	44	P5	1-1-9-6	
5718	G	6.3	0	45	#	P5	1-3-6-1		6386	R	6.3	0	45	44	P5	1-1-9-8	
5719	G	6.3	0	0	#	P5	1-3-6-8		6386	R	6.3	0	45	44	P5	1-1-9-2	
5727	G	6.3	0	63	45	P3	2-0-0-6		6397	G	2.5	0	45	#	P5	1-1-13-8	Δ Short 1, 5 & 12
5744	G	6.3	0	25	#	P2	1-13-3-1	Δ Short 7, 8 & 9	6417	G	12.6	10	45	44	P2	2-8-9-6	Δ Short 7, 8 & 9
5763	G	6.3	10	45	44	P2	2-8-9-6		6533	R	6.3	0	45	#	P5	1-6-12-5	
5784	G	6.3	0	45	#	P5	1-3-4-13	Δ Short 6	6686	B	6.3	18	90	44	P2	2-2-8-7	Δ Short 1, 3 & 6
5788	G	25	0	47	#	P5	1-4-5-13		6688	B	6.3	14	90	44	P2	2-2-7-9	Δ Short 1 & 3
5812	B	6.3	0	52	45	P5	2-0-5-6	*Δ Short 7, 12 & 13	6689	B	6.3	23	85	44	P2	2-2-1-6	Δ Short 3
5840	G	6.3	0	30	#	P5	1-3-6-12	Δ Short 4, 8 & 13	6788	G	6.3	0	45	#	P5	1-3-6-1	
5847	G	6.3	0	45	44	P5	1-3-9-8	Δ Short 12	6792	R	6.3	0	30	40	P5	2-0-0-1	Cap = P
5851	R	2.5	0	45	#	P5	1-1-7-0		6814	G	6.3	0	47	#	P5	1-3-6-1	
5854	R	1.1	0	47	#	P5	1-3-5-2		6832	R	6.3	0	45	#	P5	1-3-6-4	
5875	R	1.1	0	47	#	P5	1-3-5-2		6832	R	6.3	0	45	#	P5	1-3-6-5	
5886	R	1.1	0	47	#	P5	1-3-4-6		6854	G	6.3	0	40	44	P5	1-1-9-12	
5886	R	6.3	0	47	#	P5	1-3-6-1		6854	G	6.3	0	40	44	P5	1-1-9-6	
5896	G	6.3	0	47	#	P5	1-3-6-5		6877	R	6.3	0	60	44	P3	1-3-13-8	
5897	G	6.3	0	47	#	P5	1-3-6-8		6883	B	12.6	73	10	40	P2	2-5-3-0	Cap = P Δ Short 1, 4 & 6
5899	G	6.3	0	47	#	P5	1-3-6-1	Δ Short 4, 8 & 13	6889	R	6.3	0	48	40	P3	1-6-8-5	Δ Cap = K
5900	G	6.3	0	45	#	P5	1-3-6-1	Δ Short 4, 8 & 13									
5901	G	6.3	0	30	#	P5	1-3-6-12	Δ Short 4, 8 & 13									
5902	G	6.3	0	10	#	P5	1-3-6-12	Δ Short 4, 8 & 13									

5903	G	25	0	47	#	P5	1-3-6-5	6900	G	12.6	36	73	44	P2	2-7-0-9 *
5903	G	25	0	47	#	P5	1-3-6-1	6900	G	12.6	36	73	44	P2	2-2-8-1
5904	G	25	0	47	#	P5	1-3-6-8	6943	G	6.3	0	43	#	P5	1-3-6-12
5905	G	25	0	45	#	P5	1-3-6-12	6944	G	6.3	0	40	#	P5	1-3-6-12
5906	G	25	0	47	#	P5	1-3-6-1	6945	G	6.3	0	40	#	P5	1-3-6-12
5907	G	25	0	45	#	P5	1-3-6-12	6946	G	6.3	0	47	#	P5	1-3-6-1
5908	G	25	0	45	#	P5	1-3-6-12	6947	G	6.3	0	40	#	P5	1-3-6-1
5916	G	25	0	47	#	P5	1-3-6-1	6948	G	6.3	0	45	#	P5	1-3-6-1
5971	G	1.1	0	18	#	P5	1-3-5-1 *	7027	R	6.3	0	65	40	P3	1-13-12-8
5977	G	6.3	0	45	#	P5	1-3-6-8	7044	G	12.6	20	88	44	P6, P2	2-7-0-9 *
5987	G	6.3	0	45	#	P5	1-3-6-1	7044	G	12.6	20	88	44	P6, P2	2-7-0-9 *
5993	G	6.3	0	40	44	P3	1-3-7-1	7119	G	12.6	25	89	44	P6, P2	2-7-8-9
5993	G	6.3	0	40	44	P3	1-3-7-9	7119	G	12.6	25	89	44	P6, P2	2-7-8-9
6000	B	25	38	78	40	P2	2-1-5-8	7212	B	6.3	73	10	40	P2	2-2-8-1
6007	G	1.1	0	35	#	P5	1-3-5-13	7233	R	6.3	0	46	44	P5	2-5-3-0
6012	G	6.3	0	40	40	P3	2-0-0-5	7239	B	6.3	38	50	44	P2	1-12-13-8
6021	G	6.3	0	45	#	P5	1-3-6-1	7360	B	6.3	20	68	44	P2	2-1-0-6
6021	G	6.3	0	45	#	P5	1-3-6-8	7360	B	6.3	20	68	44	P2	2-3-2-6
6029	R	1.1	0	40	41	P5	1-13-4-1 *	7370	G	35	34	61	44	P6, P2	2-3-2-7
X6030	R	2.5	0	45	41	P5	1-2-7-0	7370	G	35	34	61	44	P6, P2	2-7-8-9
6050	G	1.1	0	47	#	P5	1-13-4-1 *	7701	B	12.6	15	43	44	P2	2-2-8-1
6061	G	6.3	10	89	44	P1	2-2-1-8	7734	B	6.3	19	45	44	P2	2-2-7-9
6084	B	6.3	30	83	44	P1	2-9-1-6	7734	G	6.3	65	42	44	P2	2-8-1-9
6094	R	6.3	0	45	44	P3	1-3-13-8	7737	B	6.3	14	90	44	P2	2-3-0-6
6098	R	6.3	0	48	40	P3	1-6-8-1	7751	R	6.3	74	47	40	P2	2-2-7-9
6110	G	6.3	0	47	#	P5	1-3-6-1	7757	R	6.3	0	45	44	P3	2-5-0-8
6111	G	6.3	0	45	#	P5	1-3-6-8	7759	G	25	0	45	#	P5	1-3-13-8
6111	G	6.3	0	45	#	P5	1-3-6-8	7759	G	25	0	45	#	P5	1-3-6-1
6112	G	6.3	0	40	#	P5	1-3-6-1	7760	G	25	0	47	#	P5	1-3-6-8
6112	G	6.3	0	40	#	P5	1-3-6-1	7761	G	25	0	45	#	P5	1-3-6-1
6118	G	6.3	10	10	40	P1	2-0-0-3	7762	G	25	0	10	#	P5	1-3-6-12
6118	G	6.3	0	40	40	P5	2-0-0-5	7788	R	6.3	27	90	44	P2	8 & 13
6118	G	6.3	0	40	40	P5	2-0-0-4	7861	G	12.6	0	45	44	P5	1-3-6-12
6132	B	6.3	18	85	44	P2	2-2-8-7	7861	G	12.6	0	45	44	P5	1-3-6-12
6146, A	B	6.3	73	10	40	P2	2-5-3-0	7889	G	25	0	40	#	P5	2-2-1-3
6147	R	2.5	0	45	#	P5	1-1-7-0	7889	G	25	0	40	#	P5	1-1-9-3
6148	G	6.3	0	45	#	P5	1-3-4-12	7905	B	6.3	0	90	44	P3	1-1-9-7
6159	B	25	73	10	40	P2	2-5-3-0	8032	B	12.6	73	10	40	P2	1-3-6-1
6184	G	6.3	0	47	#	P5	1-3-6-12	8064	G	25	0	47	#	P5	1-3-6-1
6184	G	6.3	0	47	#	P5	1-3-6-13	8106	B	12.6	22	85	44	P2	2-7-8-3

HICKOK MODEL CA99 PTER TUBE CHART

Tube Type	Color	Htr	Bias	Shunt	Socket	Press	Selectors A B C D	Notations	Tube Type	Color	Htr	Bias	Shunt	Socket	Press	Selectors A B C D	Notations
8149	B	12.6	50	50	43	P2	2-10-4-8 *		CV891	G	6.3	23	0	41	P2	2-3-0-2	400 Min
8150	B	12.6	60	50	43	P2	2-10-5-8 *	Cap = P	CV891	G	6.3	0	40	41	P5	2-0-0-6	
8156	B	12.6	53	10	43	P2	2-10-7-11		CV891	G	6.3	0	40	41	P5	2-0-0-6	
8185	G	6.3	0	47	#	P5	1-1-8-3		CV892	B	6.3	38	67	41	P1	2-6-5-2	Δ Short 7
8186	G	25	0	47	#	P5	1-1-8-3		CV892	G	6.3	0	40	41	P5	2-0-0-4	
8298	B	6.3	73	10	40	P2	2-5-3-0	Cap = P	CV892	G	6.3	0	40	41	P5	2-0-0-3	
							Δ Short 1,		CV893	G	6.3	10	10	41	P1	2-5-0-6	
							4 & 6		CV893	G	6.3	10	10	41	P1	2-4-0-3	
8552	B	12.6	73	10	40	P2	2-5-3-0	Cap = P	CV894	B	6.3	27	47	41	P2	2-6-3-2	Δ Short 7
							Δ Short 1,		CV895	B	6.3	19	45	41	P2	2-6-3-2	Δ Short 7
							4 & 6		CV896	G	6.3	0	13	41	P1	2-4-0-3	
8569	G	.6	0	100	#	P5	1-1-3-4	OK if lit	CV896	G	6.3	0	42	41	P5	2-0-0-5	
CV500	G	6.3	17	28	40	P1	2-0-0-3	Cap = G	CV897	G	6.3	10	74	41	P1	2-4-0-3	
CV500	G	6.3	0	40	40	P5	2-0-0-5		CV897	G	6.3	40	50	41	P1	2-6-5-2	
CV500	G	6.3	0	40	40	P5	2-0-0-4		CV898	G	6.3	20	89	41	P1	2-5-0-6	
CV522	G	6.3	35	80	41	P1	2-6-3-2	Δ Short 7	CV898	G	6.3	20	89	41	P1	2-4-0-3	Δ Short 7
CV529	G	12.6	0	45	40	P5	1-12-8-5		CV899	G	6.3	45	82	41	P1	2-4-0-3	Δ Short 7
CV529	G	12.6	0	45	40	P5	1-12-8-1		CV899	B	6.3	30	84	41	P1	2-6-5-2	Δ Short 7
CV531	B	12.6	30	81	40	P1	2-0-3-6	Cap = G	CV900	G	6.3	0	30	41	P5	2-0-0-4	
							Δ Short 8		CV900	G	6.3	0	30	41	P5	2-0-0-6	
CV531	G	12.6	0	40	40	P5	2-0-0-5		CV901	G	6.3	0	30	41	P3	2-0-0-6	
CV531	G	12.6	0	40	40	P5	2-0-0-4		CV901	G	6.3	0	30	41	P3	2-0-0-3	
CV558	G	25	0	60	40	P3	2-0-0-3		CV911	G	12.6	10	10	40	P1	2-8-0-5	Cap = G
CV558	G	25	0	60	40	P3	2-0-0-5		CV911	G	12.6	10	10	40	P1	2-0-3-4	Δ Short 1
CV559	G	25	0	60	40	P3	2-0-0-3										& 6
CV559	G	25	0	60	40	P3	2-0-0-5										
CV564	G	35	0	63	41	P3	2-0-0-2		CV916	G	12.6	0	45	40	P5	2-0-0-5	
CV587	G	6.3	10	10	40	P1	2-0-0-3	Cap = G	CV916	G	12.6	0	45	40	P5	2-0-0-3	
CV587	G	6.3	0	40	40	P5	2-0-0-5		CV921	G	12.6	0	15	40	P5	1-12-8-4	Δ Short 3
CV587	G	6.3	0	40	40	P5	2-0-0-4		CV921	G	12.6	0	40	40	P5	1-12-8-5	
CV588	G	6.3	10	10	40	P1	2-0-0-3	Cap = G	CV930	G	12.6	10	10	41	P1	2-5-0-6	
CV588	G	6.3	0	40	40	P5	2-0-0-5		CV930	G	12.6	10	10	41	P1	2-4-0-3	
CV588	G	6.3	0	40	40	P5	2-0-0-4		CV937	B	25	75	77	40	P1	2-5-4-3	Δ Short 1
CV588	G	6.3	0	40	40	P1	2-0-0-3	Cap = G								& 8	
CV589	G	6.3	10	10	40	P5	2-0-0-5		CV937	G	25	0	60	40	P3	2-0-0-6	Δ Short 6
CV589	G	6.3	0	40	40	P5	2-0-0-4		CV946	G	25	0	45	41	P3	2-0-0-3	Δ Short 1
CV589	G	6.3	0	40	40	P5	2-0-0-2	Δ Cap = G	CV946	B	35	50	30	40	P2	2-5-4-3	& 8
CV726	G	35	0	63	41	P3	2-0-0-2		CV948	G	35	0	63	40	P3	2-0-0-6	
CV770	B	2	45	30	40	P1	2-0-6-3		CV948	G	35	0	63	40	P3	2-0-0-6	
CV770	G	2	0	40	40	P5	2-0-0-5		CV1301	G	6.3	0	45	40	P5	2-0-0-5	
CV770	G	2	0	40	40	P5	2-0-0-4		CV1301	G	6.3	0	45	40	P5	2-0-0-3	
CV772	G	1.4	14	32	40	P1	2-5-0-6		CV1301	G	6.3	0	45	40	P5	2-0-0-3	
CV772	G	1.4	20	10	40	P1	2-4-0-3		CV1753	B	35	54	41	P2	2-6-3-2	Δ Short 7	
CV773	G	1.4	14	32	40	P1	2-5-0-6		CV1756	R	12.6	0	100	40	P4	2-5-0-8	Eye
CV773	G	1.4	20	10	40	P1	2-4-0-3		CV1756	R	12.6	0	100	40	P4	2-5-3-8	Closed Eye
CV775	G	1.4	58	0	41	P1	2-4-0-5	Δ	CV1756	R	12.6	0	100	40	P4	2-5-3-8	Open Eye
CV776	B	1.4	65	55	41	P1	2-6-3-2 *	Δ	CV1759	G	6.3	10	83	40	P1	2-0-0-0	Open Rear Cap = P
CV777	B	1.4	35	0	41	P1	2-6-3-2 *	Δ Short 5, 12 & 13	CV1759	G	6.3	10	83	40	P1	2-0-0-0	Front Cap = G

[illegible]

Tube Type	Color	Htr	Bias	Shunt	Socket	Press	Selectors A B C D	Notations	Tube Type	Color	Htr	Bias	Shunt	Socket	Press	Selectors A B C D	Notations
CV2136	G	6.3	10	89	44	P1	2-2-1-8	Δ Short 1, 2 & 3	E80F	B	6.3	30	83	44	P1	2-9-1-6	Δ Short 2, 3 & 7
CV2237	G	1.1	0	44	#	P5	1-3-5-4	Δ	E81L	B	6.3	18	90	44	P2	2-2-8-7	Δ Short 1, 3 & 6
CV2238	G	1.1	0	45	#	P5	1-3-5-4	Δ	E83F	B	6.3	23	85	44	P2	2-2-1-6	Δ Short 3
CV2239	G	1.1	0	45	#	P5	1-13-4-1	*	E91N	G	6.3	0	0	45	P3	2-0-0-6	Δ Short 2, 5 & 7
CV2240	G	2.5	0	45	45	P5	1-13-5-1	*Δ Short 2, 5, 6 & 13	E180F	B	6.3	14	90	44	P2	2-2-7-9	Δ Short 1 & 3
CV2556	B	117	43	57	40	P2	2-4-5-3	Δ Short 1 & 8	E182CC	G	12.6	25	89	44	P6, P2	2-7-8-9	
CV2556	B	117	0	63	40	P3	2-0-0-6	Δ Short 8	E182CC	G	12.6	25	89	44	P6, P2	2-2-8-1	
CV2565	G	6.3	0	63	40	P3	2-0-0-3	Δ Short 8	E182F	G	6.3	0	45	44	P5	1-3-9-8	Δ Short 12
CV2575	G	6.3	0	45	44	P5	1-1-9-3		E182F	B	6.3	14	90	44	P2	2-2-7-9	Δ Short 1 & 3
CV2578	G	12.6	36	73	44	P2	1-1-9-7	*	E235L	R	6.3	74	47	40	P2	2-5-0-8	
CV2578	G	12.6	36	73	44	P6, P2	2-2-8-1		EAM86	B	6.3	100	100	44	P2	2-8-3-6	Screen OFF
CV2662	G	6.3	0	45	#	P5	1-3-6-1		EAM86	B	6.3	100	100	44	P2	2-8-7-6	Screen Pos. 1 ON
CV2698	G	6.3	0	47	#	P5	1-3-6-5		EAM86	B	6.3	0	45	44	P5	2-0-0-2	
CV2698	G	6.3	0	47	#	P5	2-0-0-4		EC88	G	6.3	0	45	44	P5	2-0-0-8	
CV2705	G	6.3	0	45	41	P5	2-0-0-4		EC86	G	6.3	0	45	44	P5	2-0-0-1	
CV2709	G	1.4	0	40	41	P5	2-0-0-4		EC86	G	6.3	17	87	44	P2	2-2-7-6	
CV2710	G	1.4	0	34	41	P5	2-0-0-4		ECF801	G	6.3	32	75	44	P2	2-9-0-8	
CV2721	B	6.3	62	20	44	P2	2-2-7-8	Cap = P	ECF801	G	6.3	32	75	44	P2	2-9-0-8	
CV2729	B	6.3	30	83	44	P1	2-9-1-6	Δ Short 2, 3 & 7	ECF805	B	6.3	24	83	44	P2	2-7-3-2	Δ Short 6 & 8
CV2831	G	6.3	0	46	44	P5	1-1-9-3		ECF805	B	6.3	35	20	44	P2	2-9-0-1	
CV2831	G	6.3	0	46	44	P5	1-1-9-7		ECF805	B	6.3	35	20	44	P2	2-2-0-1	Δ Short 3
CV2847	G	6.3	0	45	#	P3	1-13-3-1	Δ Short 2, 5 & 7	ECF805	B	6.3	35	20	44	P2	2-9-0-8	
CV2876	G	6.3	0	63	45	P3	2-0-0-6	Δ	ECF805	B	6.3	35	20	44	P2	2-9-0-8	Δ Short 3 & 7
CV2901	B	6.3	20	83	44	P1	2-9-1-6	Cap = G	ECF805	B	6.3	35	20	44	P2	2-2-0-1	
CV2912	G	6.3	25	87	40	P5	2-0-0-3		ECF805	B	6.3	35	20	44	P2	2-2-0-1	Δ Short 7
CV2912	G	6.3	0	40	40	P5	2-0-0-5		ECF805	B	6.3	35	20	44	P2	2-2-0-1	Δ Short 7
CV2912	G	6.3	0	40	40	P5	2-0-0-4	Cap = P	ECF805	B	6.3	35	20	44	P2	2-2-0-1	Δ Short 7
CV2940	G	6.3	65	53	40	P6, P2	2-5-1-4	Δ Short 1, 3 & 8	ECF805	B	6.3	35	20	44	P2	2-2-0-1	Δ Short 7
CV2968	G	6.3	0	45	41	P5	1-2-7-4		ECF805	B	6.3	35	20	44	P2	2-2-0-1	Δ Short 7
CV2968	G	6.3	0	45	41	P5	1-2-7-5		ECF805	B	6.3	35	20	44	P2	2-2-0-1	Δ Short 7
CV3512	G	6.3	0	63	45	P3	2-0-0-6	Δ Short 2, 5 & 7	ECF805	B	6.3	35	20	44	P2	2-2-0-1	Δ Short 7
CV3523	B	6.3	66	10	40	P2	2-5-3-0	Cap = P	ECF805	B	6.3	35	20	44	P2	2-2-0-1	Δ Short 7
CV3526	G	6.3	45	79	44	P1	2-2-1-9	Δ Short 1, 4 & 6	ECF805	B	6.3	35	20	44	P2	2-2-0-1	Δ Short 7

CV3577	G	25	0	45	40	P5	1-6-12-1 1-6-12-3 2-0-0-7 2-2-6-9 2-2-6-9-1 2-4-1-8	Δ Short 13 Δ Short 13 Δ Short 2 Bias Controls Right Pattern Bias	EL360	G	6.3	65	53	40	P6, P2	2-5-1-4 2-2-8-7 2-2-8-7 2-2-8-7 2-6-8-8 2-2-1-3 2-4-0-5	Δ Cap = P Short 1, 3 & 8 Δ Short 1, 3 & 9 Δ Short 3 Δ Short 7 Δ Short 7 Both screens open Left screen closed Right screen closed Screen OFF Short on Pos. 1 or 1 & 3 Screen on for tubes with short on Pos. 1 & 3 Screen on for tubes with short on Pos. 1 only Screen ON Screen OFF Δ Short 2, 7 & 9 Δ Short 3 & 8 Δ Short 3 2-2-0-1 2-9-0-8 2-2-7-6 2-9-0-8 2-1-7-5 & 6	
CV3577	G	25	0	45	40	P5	1-6-12-1 1-6-12-3 2-0-0-7 2-2-6-9 2-2-6-9-1 2-4-1-8	Δ Short 13 Δ Short 13 Δ Short 2 Bias Controls Right Pattern Bias	EL360	G	6.3	65	53	40	P6, P2	2-5-1-4 2-2-8-7 2-2-8-7 2-2-8-7 2-6-8-8 2-2-1-3 2-4-0-5	Δ Cap = P Short 1, 3 & 8 Δ Short 1, 3 & 9 Δ Short 3 Δ Short 7 Δ Short 7 Both screens open Left screen closed Right screen closed Screen OFF Short on Pos. 1 or 1 & 3 Screen on for tubes with short on Pos. 1 & 3 Screen on for tubes with short on Pos. 1 only Screen ON Screen OFF Δ Short 2, 7 & 9 Δ Short 3 & 8 Δ Short 3 2-2-0-1 2-9-0-8 2-2-7-6 2-9-0-8 2-1-7-5 & 6	
CV3610	G	6.3	0	42	44	P3	2-0-0-7	Δ Short 13	EL821	B	6.3	18	85	44	P2	2-2-8-7	Δ Short 1, 3 & 9	Δ Short 1, 3 & 9
CV3612	G	6.3	15	35	44	P2	2-2-6-9	Bias	EL822	B	6.3	18	85	44	P2	2-2-8-7	Δ Short 3	Δ Short 3
CV3613	R	6.3	0	48	40	P3	2-2-6-9-1	Controls	ELL80	B	6.3	15	81	44	P2	2-6-8-8	Δ Short 7	Δ Short 7
CV3707	R	6.3	Vary	100	40	P2	2-4-1-8	Pattern	EM34	B	6.3	100	100	40	P2	2-2-1-3	Δ Short 7	Δ Short 7
CV3707	R	6.3	Vary	100	40	P2	2-5-1-8	Bias	EM34	B	6.3	100	100	40	P2	2-4-0-5	Both screens open	Both screens open
CV3707	R	6.3	Vary	100	40	P2	2-6-1-8	Controls Both Patterns	EM34	B	6.3	100	100	40	P2	2-4-3-5	Left screen closed	Left screen closed
CV3711	B	6.3	10	88	45	P2	2-1-7-5	Bias	EM34	B	6.3	100	100	40	P2	2-4-6-5	Right screen closed	Right screen closed
CV3827	B	12.6	30	81	40	P1	2-0-3-6	Pattern & 6 Cap = G Δ Short 8	EM80	B	6.3	100	100	44	P4	2-1-7-2	Screen OFF	Screen OFF
CV3827	G	12.6	0	40	40	P5	2-0-0-5	Δ Short 2, 5 & 7	EM80	B	6.3	100	100	44	P4	2-1-8-2	Short on Pos. 1 or 1 & 3	Short on Pos. 1 or 1 & 3
CV3827	G	12.6	0	40	40	P5	2-0-0-4	Δ Short 2, 5 & 7	EM80	B	6.3	100	100	44	P4	2-1-8-2	Screen on for tubes with short on Pos. 1 & 3	Screen on for tubes with short on Pos. 1 & 3
CV3894	G	6.3	0	44	#	P5	1-3-6-8	Cap = G	EM80	B	6.3	100	100	44	P4	2-1-8-2	Screen on for tubes with short on Pos. 1 & 3	Screen on for tubes with short on Pos. 1 & 3
CV3894	G	6.3	0	44	#	P5	1-3-6-1	Δ Short 12	EM80	B	6.3	100	100	44	P4	2-1-8-2	Screen on for tubes with short on Pos. 1 & 3	Screen on for tubes with short on Pos. 1 & 3
CV3905	G	6.3	0	45	44	P5	1-3-9-8	Δ Short 12	EM80	B	6.3	100	100	44	P4	2-1-8-2	Screen on for tubes with short on Pos. 1 & 3	Screen on for tubes with short on Pos. 1 & 3
CV4008	G	6.3	0	0	#	P5	1-3-6-8	Δ Short 12	EM80	B	6.3	100	100	44	P4	2-1-8-2	Screen on for tubes with short on Pos. 1 & 3	Screen on for tubes with short on Pos. 1 & 3
CV4013	G	6.3	0	45	44	P5	1-1-9-3	Δ Short 12	EM80	B	6.3	100	100	44	P4	2-1-8-2	Screen on for tubes with short on Pos. 1 & 3	Screen on for tubes with short on Pos. 1 & 3
CV4013	G	6.3	0	45	44	P5	1-1-9-7	Δ Short 12	EM80	B	6.3	100	100	44	P4	2-1-8-2	Screen on for tubes with short on Pos. 1 & 3	Screen on for tubes with short on Pos. 1 & 3
CV4018	G	6.3	0	0	45	P3	2-0-0-6	Δ Short 2, 5 & 7	EM80	B	6.3	100	100	44	P4	2-1-8-2	Screen on for tubes with short on Pos. 1 & 3	Screen on for tubes with short on Pos. 1 & 3
CV4029	G	6.3	0	10	#	P5	1-3-6-12	Δ Short 4, 8 & 13 Δ Short 1, 3 & 9	EM80	B	6.3	100	100	44	P4	2-1-8-2	Screen on for tubes with short on Pos. 1 & 3	Screen on for tubes with short on Pos. 1 & 3
CV4055	B	6.3	18	85	44	P2	2-2-8-7	Δ Short 1, 3 & 9	EM80	B	6.3	100	100	44	P4	2-1-8-2	Screen on for tubes with short on Pos. 1 & 3	Screen on for tubes with short on Pos. 1 & 3
DAF91	G	1.4	0	44	45	P5	1-1-7-13	Δ	EM81	R	6.3	100	100	44	P2	2-1-0-2	Screen ON	Screen ON
DAF91	G	1.4	0	40	45	P5	1-1-7-12	Δ	EM81	R	6.3	100	100	44	P2	2-1-7-2	Screen ON	Screen ON
DAF96	G	1.1	0	45	45	P5	1-1-7-6	Δ	EM81	R	6.3	100	100	44	P2	2-1-7-2	Screen ON	Screen ON
DAF96	G	1.1	0	45	45	P5	1-1-7-12	Δ	EM81	R	6.3	100	100	44	P2	2-1-7-2	Screen ON	Screen ON
DC70	G	1.4	0	45	#	P5	1-4-5-8	Δ	EN91	G	6.3	0	63	45	P3	2-0-0-6	Screen OFF	Screen OFF
DCC90	G	3	0	45	45	P5	1-1-7-6	*	EN91	G	6.3	0	63	45	P3	2-0-0-6	Screen OFF	Screen OFF
DCC90	G	3	0	45	45	P5	1-1-7-12	*	EQ80	B	6.3	20	42	44	P2	2-7-1-6	Δ Short 2, 7 & 9 Δ Short 3 & 8	Δ Short 2, 7 & 9 Δ Short 3 & 8
DK96	G	1.4	0	45	45	P5	1-1-7-13	Δ	EQ80	B	6.3	20	42	44	P2	2-7-1-6	Δ Short 2, 7 & 9 Δ Short 3 & 8	Δ Short 2, 7 & 9 Δ Short 3 & 8
DL63	G	6.3	25	87	40	P1	2-0-0-3	Cap = G	EY82	G	6.3	0	63	44	P3	2-0-0-9	Δ Short 3	Δ Short 3
DL63	G	6.3	0	40	40	P5	2-0-0-5	Δ	HCH81	G	12.6	40	60	44	P1	2-2-0-1	Δ Short 3	Δ Short 3
DL63	G	6.3	0	40	40	P5	2-0-0-4	Δ	HCH81	G	12.6	19	10	44	P2	2-9-0-8	Δ Short 3	Δ Short 3
DL67	G	1.1	0	35	#	P5	1-3-5-13	Δ	HCH81	G	12.6	17	87	44	P2	2-9-0-8	Δ Short 3	Δ Short 3
DL93	G	2.5	0	45	45	P5	1-1-7-3	*Δ Short 1, 2,5,6,&7	LCF801	B	6.3	17	87	44	P2	2-2-7-6	Δ Short 1 & 3	Δ Short 1 & 3
DL98	G	2.5	0	45	45	P5	1-13-5-1	*Δ Short 2, 5,6,&13	LCF801	B	6.3	32	75	44	P2	2-9-0-8	Δ Short 2 & 6	Δ Short 2 & 6

K4XL's BAMA

This manual is provided **FREE OF CHARGE** from the "BoatAnchor Manual Archive" as a service to the Boatanchor community.

It was uploaded by someone who wanted to help you repair and maintain your equipment.

If you paid anyone other than BAMA for this manual, you paid someone who is making a profit from the free labor of others without asking their permission.

You may pass on copies of this manual to anyone who needs it. But do it without charge.

Thousands of files are available without charge from BAMA. Visit us at <http://bama.sbc.edu>