

CV2493.

Specification AD/CV2493 Issue No. 1 dated 18.2.59. To be read in conjunction with K1001 and B.S.1409	SECURITY	
	Specification Unclassified	Valve Unclassified

TYPE OF VALVE: Low Noise Double Triode CATHODE: Indirectly heated ENVELOPE: Glass PROTOTYPE: E88CC	MARKING																					
	See K1001/4																					
	BASE																					
	B9A																					
RATINGS (All limiting values are absolute)	CONNECTIONS <table border="1"> <thead> <tr> <th>Pin</th> <th>Electrode</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>a"</td> </tr> <tr> <td>2</td> <td>g"</td> </tr> <tr> <td>3</td> <td>k"</td> </tr> <tr> <td>4</td> <td>h</td> </tr> <tr> <td>5</td> <td>h</td> </tr> <tr> <td>6</td> <td>a'</td> </tr> <tr> <td>7</td> <td>g'</td> </tr> <tr> <td>8</td> <td>k'</td> </tr> <tr> <td>9</td> <td>s</td> </tr> </tbody> </table> DIMENSIONS See K1001/A.1/D.4		Pin	Electrode	1	a"	2	g"	3	k"	4	h	5	h	6	a'	7	g'	8	k'	9	s
Pin	Electrode																					
1	a"																					
2	g"																					
3	k"																					
4	h																					
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7	g'																					
8	k'																					
9	s																					
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A. Overall length	-	55.6																				
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CAPACITANCES (pF) C a, g 1.4 D,E C in 3.3 D,E C out' 1.8 D C out" 1.7 D																						
NOTES <ul style="list-style-type: none"> A. Fixed bias should not be used when anode current exceeds 5 mA. B. Max. duty cycle = 0.1; max. pulse duration = 200/μs. C. Measured at $V_a(b) = 100V$; $V_g(b) = + 9V$; $R_k = 680$ ohms. D. Without external shield. E. Values apply to each section. 																						

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TESTS

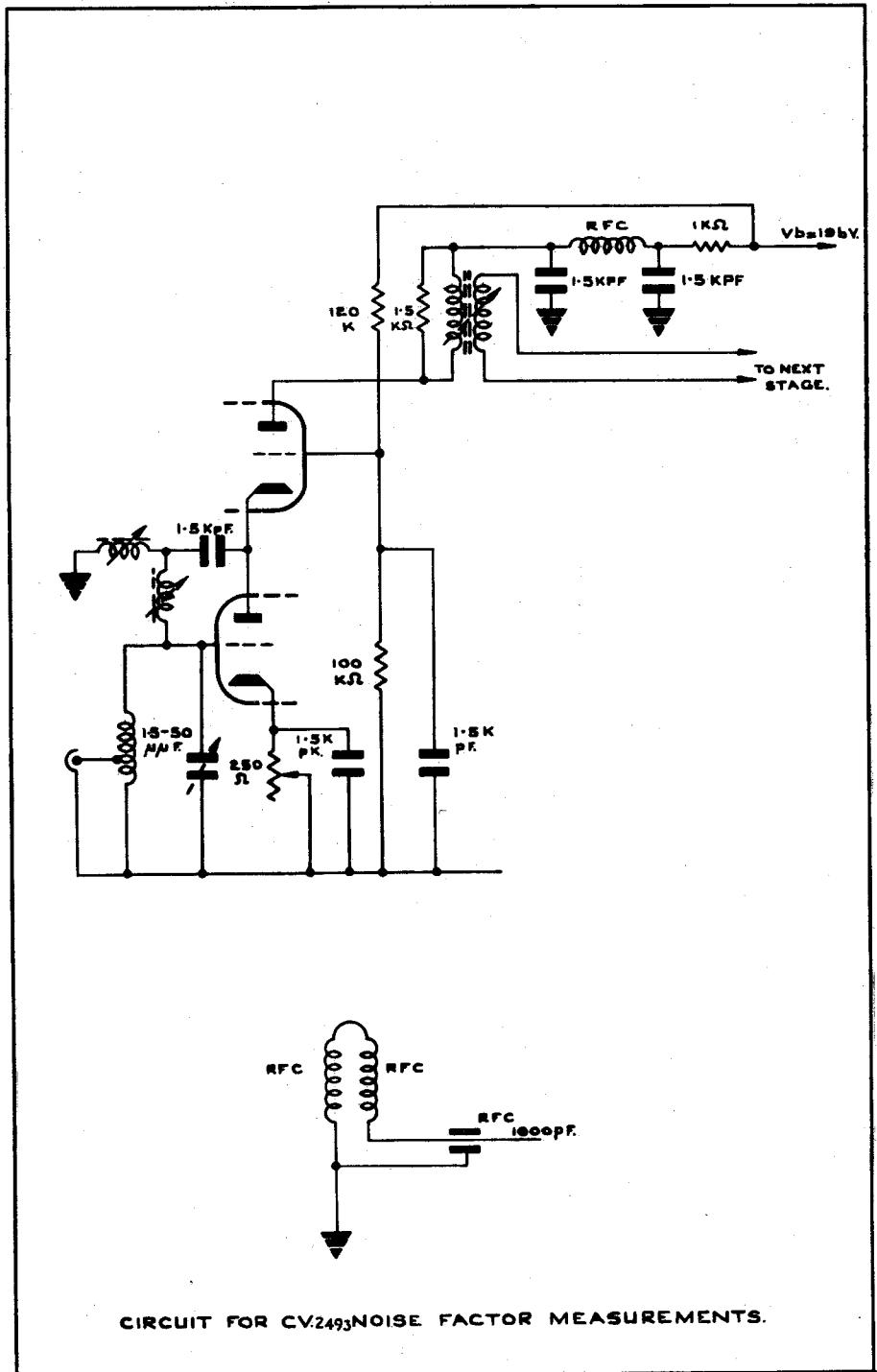
To be performed in addition to those applicable in K1001.

	Test Conditions			Test	Limits		No. Tested	Note
	Links to H.P.	Links to L.P.	Links to E		Min.	Max.		
a	6	7	Rest	Capacitances (pF)				
	1	2	Rest	C a' g'	1.2	1.6		1
	7	4,5,8,9.	Rest	C a" g"	1.2	1.6	6	1
	2	3,4,5,9.	Rest	C in'	2.7	3.9	per week	1
	6	4,5,8,9.	Rest	C in"	2.7	3.9		1
	1	3,4,5,9.	Rest	C out'	1.6	2.0		1
				C out"	1.5	1.9		1
	V _h (V)	V _a (b) (V)	V _g (b) (V)	R _k (Ohms)				
b	6.3	-	-	-	I _h (mA)	285	350	100%
c	6.3	-	-	-	Heater-Cathode Insulation Leakage Current (μA)	-	6.0	100%
d	6.3	100	9	680	I _a (mA)	14.2	15.8	100%
e	6.3	100	9	680	I _{g1} (μA)	-	0.1	100%
f	6.3	100	9	680	gm (mA/V)	10.5	15.0	100%
g	6.3	150	-8.5	0	I _a (tail) (mA)	-	0.1	100%
h	V _h (V)	V _a (b) (V)	I _a (mA)	R _k Ohms	R _a Ohms			
	6.3	196	15	adj	1000	Noise Factor (dB)	-	2.2
							See Note 6	5

NOTES

1. Measured without an external shield.
2. Heater-Cathode leakage current when the heater is 120 volts negative to cathode through a meter-protecting resistance of not greater than 1 Megohm.
3. Test each section separately.
4. Measuring signal on grid not to exceed 100 mV r.m.s.; cathode resistor suitably by-passed.
5. Valves shall be tested at a convenient frequency within the range 40-50 Mc/s in an approved head amplifier (see circuit diagram). The noise factor of the complete unit shall be measured for a bandwidth not exceeding 1 Mc/s. The noise contributed by the second stage shall not exceed 3% of the total noise. The input circuit losses measured at the grid shall not exceed an equivalent conductance of 30 micro-mhos at the test frequency. The transformed source of resistance shall be such that a minimum value of noise factor is obtained for a representative value of this type (approximately 15,000 ohms).
6. This test is to be carried out at Inspection Level I to an A.Q.L. of 4%.

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