

Specification No. MOS/CV220/3 Dated : 25.9.45. To be read in conjunction with K1001 ignoring clauses 5.2, 5.8.	<u>SECURITY</u> <u>Specification Valve</u> Restricted Restricted <i>Unclassified</i> <i>Unclassified</i>
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→ Indicates a change

<u>TYPE OF VALVE</u> : Cold cathode four electrode neon discharge tube.		<u>MARKING</u> As in K1001/4		
<u>ENVELOPE</u> : Glass.				
<u>COMMERCIAL PROTOTYPE</u> : 631.P.1.				
<u>RATING</u>		<u>Note</u>	<u>BASE</u>	
Anode voltage D.C. (max)(volts)	350	A	USS4	
Anode voltage D.C. (min)(volts)	220	A		
Average anode current (max)(mA)	100			
Grid 1-Grid 2 voltage (max)(volts)	150			
Frequency (max) (p.p.s.)	250			
Peak discharge current (max)(amps)	250			
<u>Typical Operating Conditions</u>				
Anode voltage D.C. (volts)	330	A	<u>DIMENSIONS</u> See K1001/A1/D1	
Average anode current (mA)	35			
Peak discharge current (amps)	100			
		<u>mm.</u>	<u>Min.</u>	<u>Max.</u>
		A	45	110
		B	-	35

NOTES

- A. Refers to D.C. supply voltage (across C1 in Fig. 1)
- B. The Tube shall operate normally between the ambient temperatures -35°C and +60°C.

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions	Test	Limits		No. Tested
			Min.	Max.	
a	In test circuit of Fig. 1 or in strobotac unit the tube is triggered at frequencies of 50 p.p.s. and 250 p.p.s. with 330V D.C. across reservoir condenser C1. The accuracy of the tube to be tested by an approved method (see Note 1).	<u>Frequency test</u> The tube shall flash steadily at both frequencies			
b	Using test circuit of Fig. 2 with switch set to position (b), 330V D.C. is applied across the reservoir condenser. The voltage on Grid 2 is raised until tube fires.	<u>Grid 2 starting potential</u> Grid 2 breakdown potential (measured just before discharge)(volts)	80	130	100%
c	Using test circuit of Fig. 2 with the switch set to position (c), 330V D.C. is applied across reservoir condenser.	<u>Anode-Grid 2 Breakdown</u> The tube shall not fire			100%
d	In test circuit of Fig. 1 the tube is triggered at 50 p.p.s. with 330V across reservoir condenser. Notes 1 and 2.	<u>Life Test</u> Life (hours)	300		1%

NOTES

1. A recommended method is to use an oscilloscope with a split phase 50 cycle supply for producing an elliptical image. Strobotron pulses are superimposed on a deflector plate to enable pulses at 50 and 250 cycles to be examined.
2. The tube shall be considered to have reached its life end point when it will not fire or fires at a frequency not directly controlled by the multivibrator, or shows a continuous discharge.

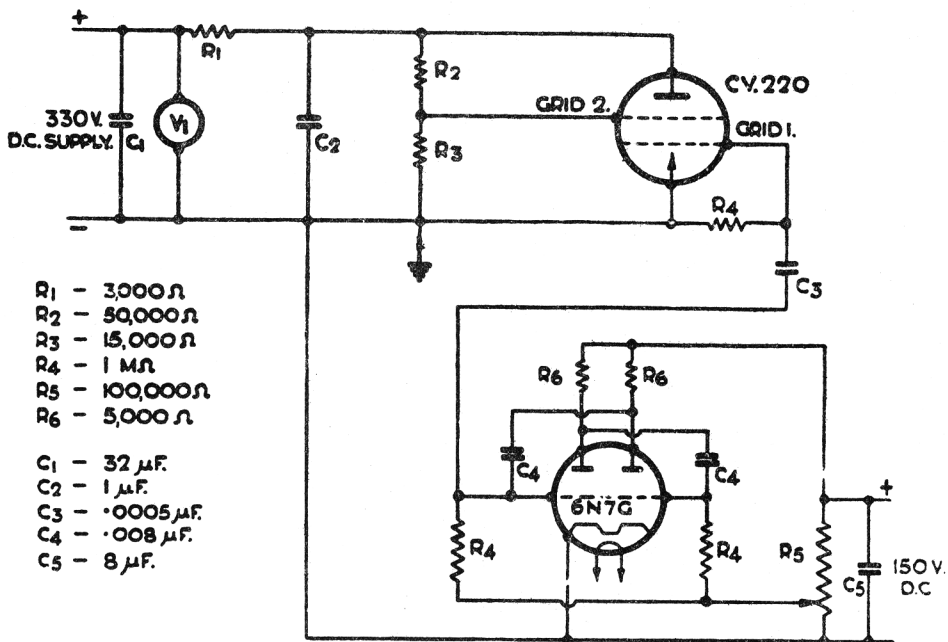


FIG. 1.

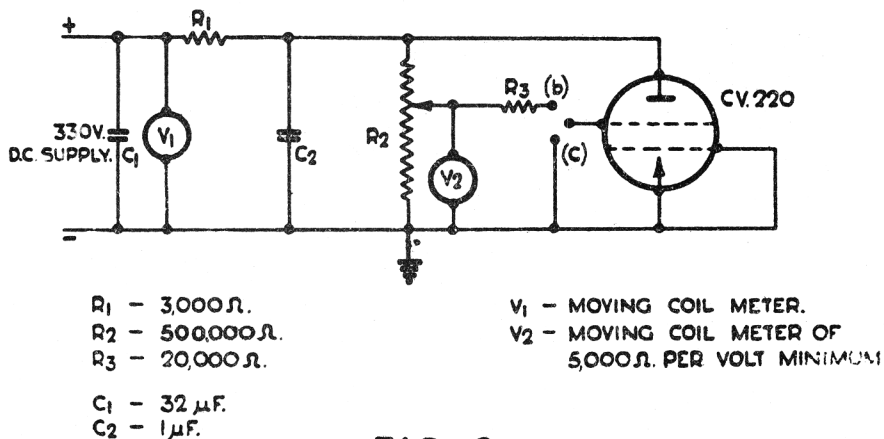


FIG. 2.