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MINISTRY OF SUPPLY (A.E.R.E.)

Specification M.O.S./CV.410. Issue 3. Dated 14th October/53. To be read in conjunction with K1001, ignoring clauses 5.2, 5.8.	<u>SECURITY</u>	
	<u>Specification</u> UNCLASSIFIED	<u>Valve</u> UNCLASSIFIED

→ Indicates a change

<u>TYPE:-</u> Cold Cathode Gas Triode. <u>ENVELOPE:-</u> Glass. <u>PROTOTYPE:-</u> K2.			<u>MARKING</u> See K1001/4	
			<u>BASE</u> None	
<u>RATING</u>			<u>Note</u>	<u>TOP CAPS AND END CAPS</u> See K1001/A1/D1
→ Max. Anode Voltage.	(V)	140		<u>DIMENSIONS AND CONNECTIONS</u> See drawings on pages 3, 4, and 5.
→ Min. Anode Voltage.	(V)	120		
→ Max. Positive Static Grid Voltage.	(V)	75	A	
→ Max. Peak Anode Current.	(mA)	30	B	
→ Tube Drop (glow discharge).	(V)	75		
→ Max. Grid Breakdown Voltage.	(V)	98	A	
→ Min. Grid Breakdown Voltage.	(V)	85	A	
<u>NOTES</u>				
A. With $V_a = 135V$.				
B. This tube should not be used for continuous D.C. operation. Max. duty cycle 1 in 2000.				

Tests to be performed in addition to those detailed in K.1001.

	TEST CONDITIONS			TEST	LIMITS		No. Tested	Note
	Va (v)	Vg(b)	Counter Voltage (V)		Min.	Max.		
(a)	150	45		Anode Cathode Breakdown	Valve shall not pass current		100%	2
(b)	135	Increase till discharge occurs		Vg (V)	85	98	100%	2
(c)	135	-do-		Ig (μ A)	-	4	100%	2,3,4
(d)	135	135	V(t) +150	Observe C.R.O.			100%	1,5,6,7
(e)	135	190	V(t) +150	-do-			100%	1,5,6,7
(f)	135	190	V(t)	-do-			100%	1,5,6,8

NOTES

1. Test to be carried out in the circuit shown in Fig.1 with valve enclosed in light proof box.
2. Test to be carried out in the circuit shown in Fig.2 with valve enclosed in light proof box.
3. To be read immediately before conduction occurs.
4. Test to last sufficient time only to take reading.
5. V(t) denotes the threshold voltage of Geiger Tube, to be checked on switching on and at hourly intervals.
6. Radioactive source of 1 μ m Radium at a distance of 6 inches from an unshielded G.M. Tube type CV.2141.
7. There shall be no multiple pulsing or continuous discharge. The waveform at the cathode should consist of a 50-100V. rise followed by an exponential fall.
8. The valve shall not pass current. There should be no waveform observed at the cathode.

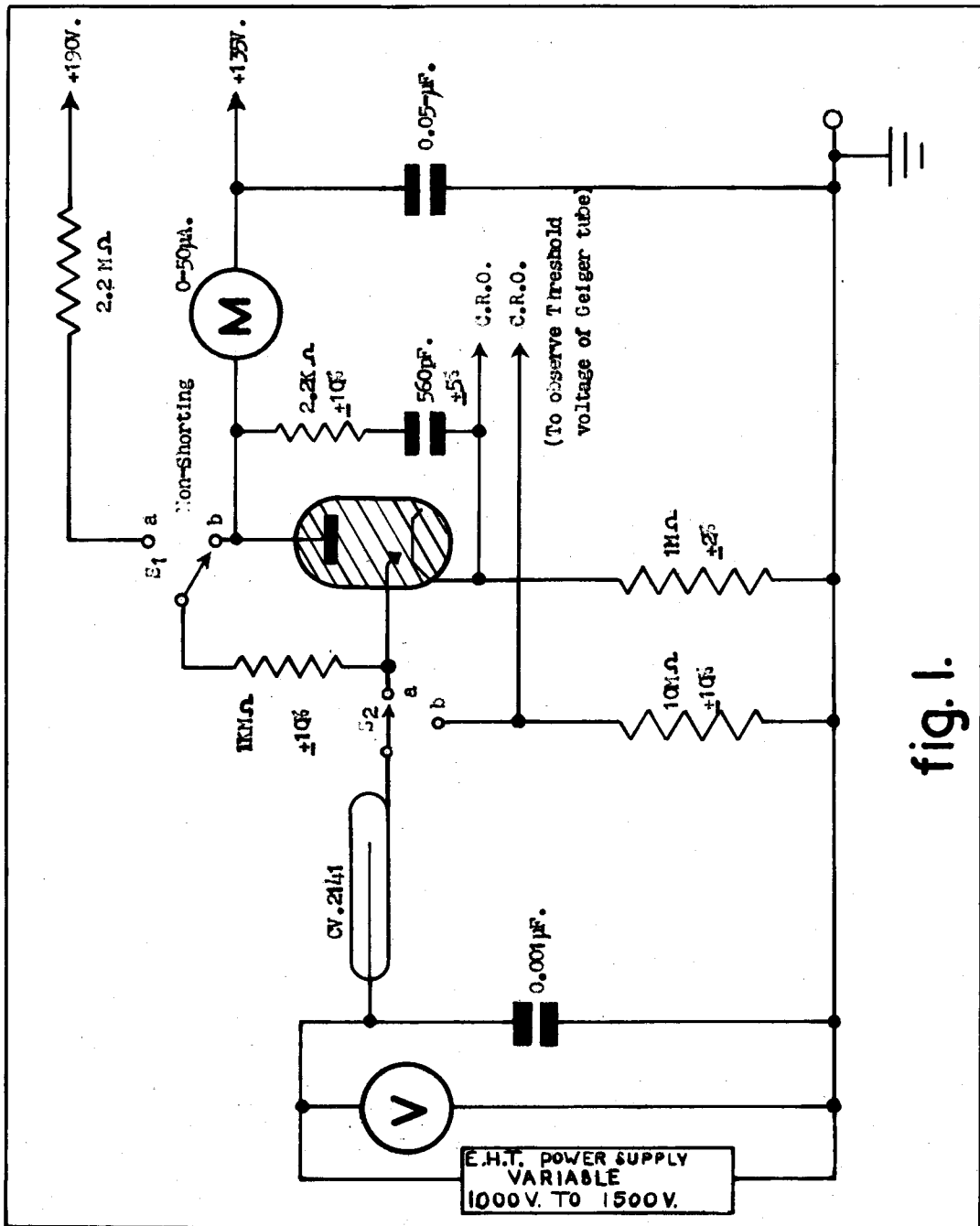
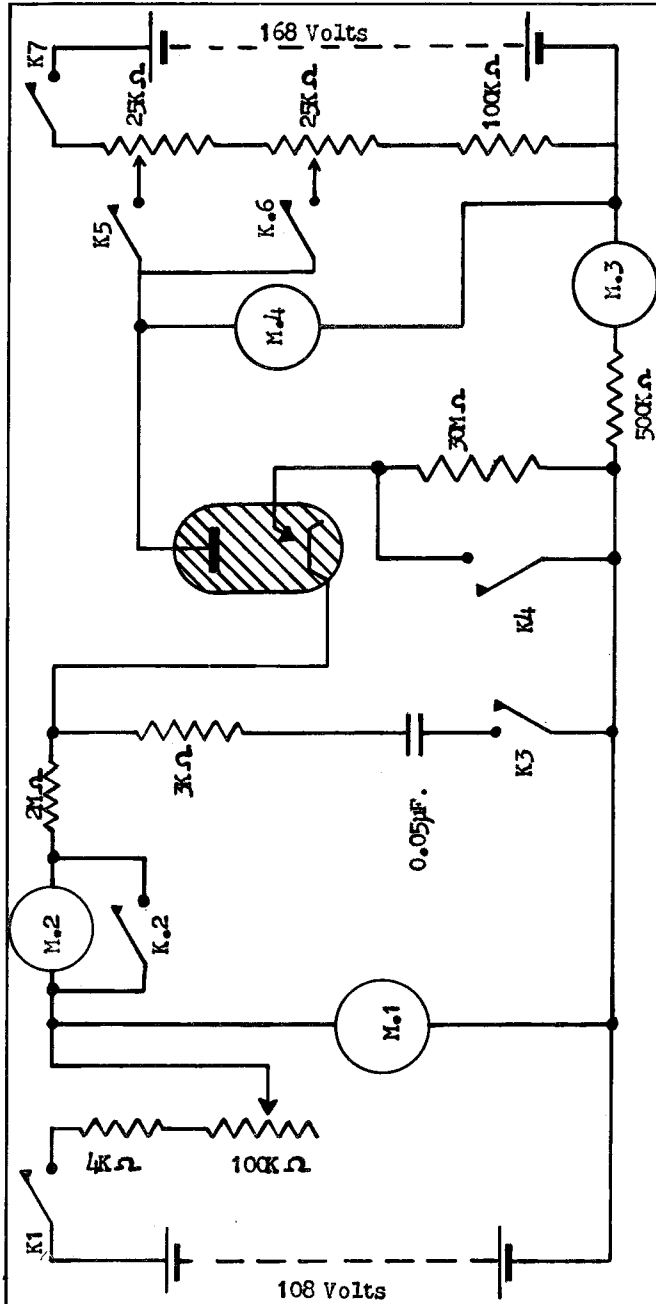


fig. 1.



TEST	SWITCH OPERATION						
	K1	K2	K3	K4	K5	K6	K7
STRIKING VOLTAGE	Set						
	Test						
GRID CURRENT	Set						
	Test						
ANODE BIRADJON	Set						
	Test						

OPEN CLOSED

M.1	0-100V.	2000Ω/V.
M.2	0-24µA.	
M.3	0-500µA.	
M.4	0-200V.	1000Ω/V.

fig.2.

