VALVE ELECTRONIC

CV34I

ADMIRALTY SIGNAL AND RADAR ESTABLISHMENT

(Was CV151 Green)

Specification AD/CV341/Issue 2.	SECURITY		
Dated 28.11.49. To be read in conjunction with K1001	Specn.	<u>Valve</u>	
ignoring clauses:- 5.2, 5.8.	Restricted	UNCLASS IF IED	

TYPE OF VALVE:- CATHODE:- ENVELOPE:- PROTOTYPE:-	Hot Cathode, gas filled grid controlled triode. Directly heated. Glass. XGR3.			MARKING See K1001/4. Colour mark as in Fig.1.		
Vf Max. If Va Vg striking	(V) (mA) (V) (V)	1.4 220 135 -3.0 to -5.0	Note A B	DIMENSIONS & CONNECTIONS See Fig.1.		

NOTES

- A. Applied through 0.1 Megohms.
- B. Applied through 5 Megohms.
- C. Tests 'c', 'd', 'e'. (i) and (ii) are alternative tests.

 Either one may be used. In test (i) pure D.C. must be used.

 There must be no A.C. ripple. In Test (ii) the A.C.

 voltage must be sinusoidal.

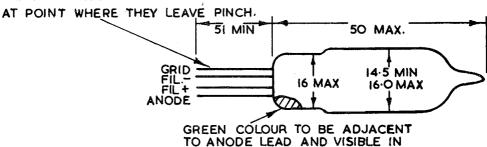
TESTS

All tests to take place after the valve has been struck six times in the circuit shewn in Fig. 2.

THE RESERVE TO A PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	Test Conditions	Post	Limits		No.	Note			
Vf(V)	-ка — 1.00 м. д. н. ст. — 3.00 м. принада на филосория и дом 150 м. поступава (уго сотвержаний поступава (уго	T QQ A	Min.	Max.	Tested	11000			
1.4	Va = Vg = 0	If (mA)		220	100%				
(Test in circuit Fig.2.) S2 closed. S1 open. Valve fired by opening S2.		Discharge test.	pass 35 mW seconds: G must read at least		100%				
1•4	(i) Test in circuit Fig. 3. (ii) Test in circuit Fig. 4.	"Vg" for striking (i) (V DC) (ii) (V RMS)	-3.0 2.1	~5•5 3•9	100%	C			
Test 'c' repeated within 5 mins., change (+) in Vg for striking, from value in test 'c', observed.		Variation in "Vg" for striking. (i) (V DC) (ii) (V RMS)	<u>-</u> 0	0.4 0.28	100%	С			
1.1 N.B. Test 'c' repeated. Change in Vg for striking, from value in test 'c' observed.		Change of "Vg" with Vf (i) (V DC) (ii) (V RMS)	ons entr	1.0 0.7	100%	С			
Valve operated with Va = 135 V. through 0.1 Megohm Vf = 1.1 V. on for 60 seconds and off for 3 minutes successively. Va applied throughout, Vg set for non-striking. On/off cycle repeated at least 1000 times.		Life Test	Valve must pass tests 'a', 'b', 'c', 'd' and 'e' above at end of life run.		0.5% (5)				
	Vf(V) 1.4 (Test S2 closs ope Valve 1.4 Test' 5 mins for st in tes 1.1 Test' in Vg value cbserv Valve 135 V. Vf = 1 60 sec 3 minu Va app set fo On/off	1.4 Va = Vg = 0 (Test in circuit Fig.2.) S2 closed. S1 open. Valve fired by opening S2. 1.4 (i) Test in circuit Fig.3. (ii) Test in circuit Fig.4. Test 'c' repeated within 5 mins., change (+) in Vg for striking, from value in test 'c', observed. 1.1 N.B. Test 'c' repeated. Change in Vg for striking, from value in test 'c' cbserved. Valve operated with Va = 135 V. through 0.1 Megohm Vf = 1.1 V. on for 60 seconds and off for 3 minutes successively. Va applied throughout, Vg set for non-striking. On/off cycle repeated at	Vf(V) 1.4 Va = Vg = 0 (Test in circuit Fig.2.) S2 closed. S1 open. Valve fired by opening S2. 1.4 (i) Test in circuit Fig.3. (ii) Test in circuit Fig.4. (i) (V DC) (ii) (V EMS) Test 'c' repeated within 5 mins., change (+) in Vg for striking, from value in test 'c', observed. 1.1 N.B. Test 'c' repeated. Change in Vg for striking, from value in test 'c' cbserved. Valve operated with Va = 1.35 V. through 0.1 Megohm Vf = 1.1 V. on for 60 seconds and off for 3 minutes successively. Va applied throughout, Vg set for non-striking. On/off cycle repeated at	Vf(V) 1.4 Va = Vg = 0 (Test in circuit Fig.2.) S2 closed. S1 open. Valve fired by opening S2. 1.4 (i) Test in circuit Fig.3. (ii) Test in circuit Fig.4. Test 'c' repeated within 5 mins., change (+) in Vg for striking, from value in test 'c', observed. 1.4 N.B. Test 'c' repeated. Change in Vg for striking, from value in test 'c' cbserved. Change of *Vg* with Vf (i) (V DC) (ii) (V RMS) Change of *Vg* with Vf (i) (V DC) (ii) (V RMS) - Change of *Vg* with Vf (i) (V DC) (ii) (V RMS) - Life Test Valve pass Change of *Vg* with Vf (i) (V DC) (ii) (V RMS) - Change of *Vg* with Vf (i) (V RMS) - Change of *Vg* with Vf (i) (V DC) (ii) (V RMS) - Change of *Vg* with Vf (ii) (V RMS) - Change of *Vg* with Vf (ii) (V RMS) - Change of *Vg* with Vf (ii) (V	Vf(V) 1.4 Va = Vg = 0 (Test in circuit Fig.2.) S2 closed. S1 open. Valve fired by opening S2. 1.4 (i) Test in circuit Fig.3. (ii) Test in circuit Fig.4. 1.5 divisions 1.6 (ii) Test in circuit Fig.4. 1.6 (ii) Test in circuit Fig.4. 1.7 (iii) V BMS 1.8 (iii) V BMS 1.9 (iii) V BMS 1.0 (iii) V BMS 1.0 (iii) V BMS 1.0 (iii) V BMS 1.0 (iiii) V BMS 1.0 (iiiii) V BMS 1.1 (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	Vf(V) 1.4 Va = Vg = 0 If (mÅ) 220 100% (Test in circuit Fig.2.)			

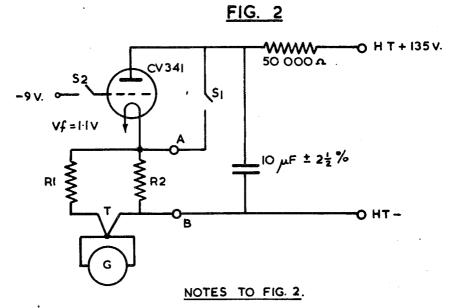
FIG. I

LEADS TO BE TINNED WITHIN 12.5 mm OF THE PINCH AND MUST BE NOT LESS THAN Imm APART BETWEEN CENTRES

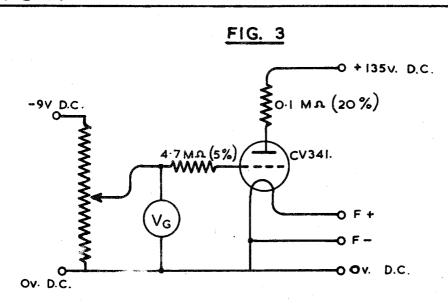


NOTE:- ALL DIMENSIONS IN MILLIMETRES.

DIRECTION OF ARROW.

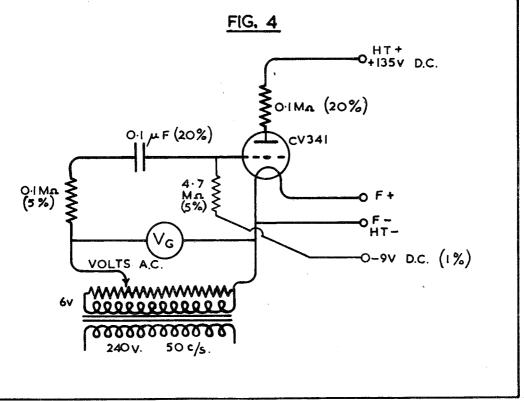


- T: THERMOCOUPLE
- GALVANOMETER, CALIBRATED SO THAT A DEFLECTION OF 40 DIVISIONS IS GIVEN BY DISCHARGE OF LOWF CONDENSER ON CLOSING SWITCH SI.
- S2: THIS SWITCH REMOVES GRID BIAS AND FIRES THE CV341.
- RI & R2 ARE SUCH THAT THE RESISTANCE BETWEEN A & B WITH SI. OPEN 3a ± 2½%. IS



NOTE:- % TOLERANCES ON VALUES GIVEN IN FIG. 3 AND FIG. 4

ARE SHEWN IN BRACKETS



CV341/2/IV

APRIL 1950