

VALVE ELECTRONIC **CV2737**

Valve Circuit Unit, design C modified.

ADMIRALTY SIGNAL & RADAR ESTABLISHMENT

Specification AD/CV2737/Issue No. 1. Dated : 26. 6. 53. To be read in conjunction with K1001, ignoring clauses 4 and 5.	<u>SECURITY</u>	
	<u>Specification</u>	<u>Valve</u>
	Unclassified	Unclassified

<u>DESCRIPTION</u> : Tuned Circuit Unit including one valve type CV354.			<u>MARKING</u> Unit and Crate :-	
<u>RATING</u>			↑ Serial No.:- J CV2737 KB/MRO	
		Note	<u>DIMENSIONS</u>	
Heater Voltage	(V)	6.3	See A.S.R.E. drawing. Drawing No. CR24432. (Not attached to this issue)	
Heater Current	(A)	0.4		
Anode Voltage (max)	(V)	350		
Anode Current (max)	(mA)	50		
Frequency Range	(Mc/s)	590 -610		
		A	<u>PACKAGING</u> See K1005/App. A.7.	
<u>NOTES</u>				
A. The centre point of the range of tuning adjustment shall be at the frequency of 600 Mc/s.				
B. The CV354 must meet the specification for that valve.				

To be performed in addition to those applicable in K1001

	Test Conditions	Test	Limits		No. Tested	Note
			Min.	Max.		
	The V.C.U. is to be tested in Amplifier M.56 in conjunction with Receiver P24A and Amplifier M.68					
a	Connect Signal Generator to receiver. With Signal Generator off, set receiver Gain Control to 1.05 volts of noise at 2nd detector, i.e. 0.21mA on 0-1 mA meter. Switch on Signal Generator and note output required to increase 2nd detector current to 0.3 mA.	<u>Signal-to-Noise Ratio</u> Not to be less than 130 db down on 1 watt. (=95 db down on 0.3 mW). (db)	130	-	100%	
b	Connect Amplifier M.56 between Signal Generator and Receiver and repeat the procedure of (a) with the Gain readjusted to give 0.21 mA with no signal.	Not to be less than 135 db down on 1 watt. (=100 db down on 0.3 mW) (db) This result corresponds to a signal-to-noise ratio of 7.5 db.	135	-	100%	
c	With Amplifier M.56 connected as in (b), adjust gain to give 2nd detector current of 0.05 mA with no signal. Switch on Signal Generator and find output needed to increase current to 0.6 mA.	<u>R.F. Gain</u> Note reading 'A'			100%	

	Test Conditions	Test	Limits		No. Tested	Note
			Min.	Max.		
d	Connect Signal Generator directly to receiver without altering the gain setting. Switch on Signal Generator and increase output to again obtain 0.6 mA at the 2nd Detector. Note output reading.	Note reading 'B'.			100%	
e	R.F. Gain is given by difference of the two readings.	Gain = Reading 'B' minus Reading 'A' = at least 10 db. (db)	10	-	100%	
<u>NOTES</u>						
1. All measurements to be made at a frequency of 600 Mc/s.						
2. The tuning point for 600 Mc/s must be adjusted to occur approximately at the centre of travel of the plunger of the CV2737.						
3. A suitable Signal Generator is the Marconi Instruments Ltd. Type TF.762C.						