ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION CV5242 ISSUE NO.1 DATED 1.2.62

AMENDMENT NO.1

Page 3 Fig.2

The connection between the two variable capacitors (the upper one is designated "Neutralising C") is incorrectly shown looped over the lead from the grid. The loop should be replaced by a "dot" to indicate a connection.

Director,
R.A.E.
18.5.62.

(40183)

MINISTRY OF AVIATION (D.L.R.D./R.A.E.)

VALVE ELECTRONIC **CV5242**

SPECIFICATION M.O.A./CV5242	SECURITY	
	SPECIFICATION	VALVE
ISSUE NO. 1 DATED 1.2.62		
To be read in conjunction with K.1001, BS.448 and BS.1409.	Unclassified	Unclassified

TYPE OF VALVE - Low Noise R.F. Grounded Cathode Triode Amplifier

CATHODE - Indirectly heated.

ENVELOPE - Glass

PROTOTYPE - A2599 (RETMA. 6CT4)

MARKING

K.1001/4.

BASE

BS.448/B9A

RATINGS
(All limiting values are absolute)

			NOTES
Heater Voltage	(V)	6.3	
Heater Current	(A)	0.3	
Max. Anode Voltage	(V)	250	
Max. Anode Dissipation	(W)	2.5	
Max. Cathode Current	(mA)	20.0	
Max. Heater Cathode Voltage	(V)	100	
Mutual Conductance	(mA/V)	14	A, C.

CONNECTIONS

Pin	Electrode	
1	Grid	g
2	Cathode	k
3	Cathode	k
4	Heater	h
5	Heater	h
6	Cathode	k
7	Cathode	k
8	Grid	g
9	Anode	a

DIMENSIONS

See BS.448/B9A/2.1
Size Ref. No. 2

CAPACITANCES (pF)

Cge	(Nom.)	3.50	B
Cae	(Nom.)	0.70	B
Cag	(Nom.)	1.1	B

DIMENSIONS (mm)	MIN.	MAX.
"A" Seated Height	-	49
"C" Diam.	-	22.2
"D" Overall Length	-	56

NOTES

A. Measured at Va (b) 180V, RL. 3.3 kΩ, Rk. 68Ω.

B. Measured with a close fitting metal screen.

C. Measured in a mutual conductance bridge, frequency 1 Kc/s, max. input signal to grid 100 mV r.m.s.

D. A Grounded Grid equivalent of this valve is Valve Type CV4105.

E. The Joint Services Catalogue Number is 5960-99-037-2097

CV5242

TESTS

To be performed in addition to those applicable in K.1001 excluding Clause 5.2

TEST CONDITIONS:- unless otherwise stated

Vh (V)	Va(b) (V)	RL. (KΩ)	Rk (Ω)
6.3	180	3.3	68

K.1001 Ref.	Test	Test Conditions	AQL %	Insp. Level	Symbol	Limits Min.	Limits Bogey	Limits Max.	Units
	Group A								
	Anode Current			100%	Ia	11.5	15.5	19.5	mA
	Anode Current	Vg1 = -4.0V		100%	Ia	-	-	2.6	mA
	Mutual Conductance	Note 1		100%	gm	10.5	14.0	17.5	mA/V
	Reverse Grid Current	Vg = -1.0V Rg = 500 kΩ max.		100%	-Ig	-	-	1.2	µA
	Group B								
	Heater Current		0.65	II	Ih	0.27	0.30	0.33	A
	Heater Cathode Leakage Current	Vhk ± 90V	0.65	II	Ihk	-	-	20	µA
	Group C								
	Noise Factor	Freq. = 49 Mc/s. Note 3	6.5	I	NF	-	-	1.7	dB
	Group D								
7.2	Base Strain	No voltages	6.5	IC	-	-		-	
AIII	Capacitances	Measured on a 1 Mc/s bridge with valve mounted in a fully shielded socket. Valve screened. See Note 2.			Cin	2.8	3.5	4.2	pF
					Cag	0.9	1.1	1.3	pF
					Cout	0.50	0.70	0.90	pF
	Group E								
AIX/ 2.5	Electrical retest after 28 days holding period			100%					
	Inoperatives		0.5		-	-	-	-	-
	Reverse Grid Current	Rg 500kΩ max.	0.5		Ig	-	-	1.5	µA

C.V.5242

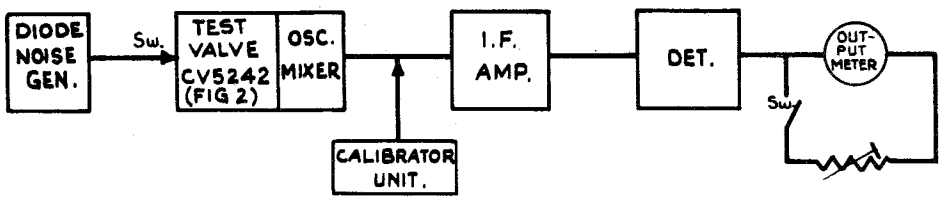
NOTES

1. Measured in a mutual conductance bridge, frequency 1 Ko/s; maximum input signal to grid 100m.V.rms. or any other approved method.
2. Capacitance connections as follows:-

CAPACITANCE	H.P.	L.P.	E
C IN	1,8	2,3,4,5,6, 7,C.	9
C OUT	9	2,3,4,5,6, 7,C	1,8
C ag	9	1,8	2,3,4,5,6, 7,C

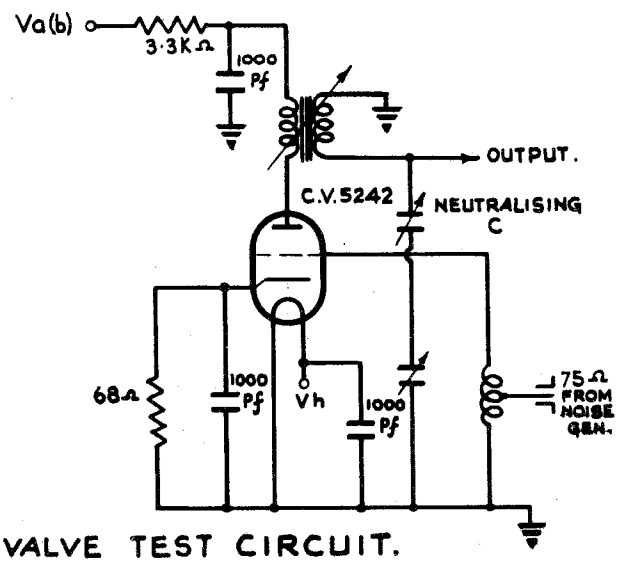
3. To be measured in an approved circuit: See Figs. 1 & 2 below.

FIG.1.



NOISE FACTOR SCHEMATIC DIAGRAM.

FIG.2.



HEAD AMPLIFIER VALVE TEST CIRCUIT.