

VALVE ELECTRONIC **CV1653**GENERAL POST OFFICE: E-IN-C (S)

(POVT 73A, AR 12)

Specification: G.P.O./CV 1653/Issue 2	<u>SECURITY</u>	
Dated: 21.2.47	<u>Specification</u>	<u>Valve</u>
To be read in conjunction with K 1001	Restricted	Restricted

---> indicates a change

<u>TYPE OF VALVE:</u> Triode				<u>MARKING</u>				
<u>CATHODE:</u> Directly heated				See K1001/4				
<u>ENVELOPE:</u> Unmetallised glass								
<u>PROTOTYPE</u> 4020A								
<u>RATING</u>				<u>Note</u>		<u>BASE</u>		
Filament current (A) 0.25				A		Bayonet cap 4-pin (BC4)		
Nominal filament voltage (V) 2.0						See drawing on page 3		
Max. anode voltage (V) 160						and Note B.		
Mutual conductance (mA/V) 0.6						<u>CONNEXIONS</u>		
Amplification factor 30.0								
Anode impedance (ohms) 50,000				A		Pin	Electrode	
						1	Grid	
						2	Filament -	
						3	Filament +	
						4	Anode	
<u>CAPACITANCES (pF)</u>						<u>DIMENSIONS</u>		
C _{ag} (max) 7.0						See K1001/A1/D1		
C _{ae} (max) 5.0						Dimension	Min.	Max.
C _{ge} (max) 7.0						A (mm)	-	120
						B (mm)	-	50

NOTE

- A. Measured with $V_a = 130$, and $V_g = -1.5$
- B. The axis of the bayonet locating pin shall lie within 25° of the plane of the filament.

TESTS

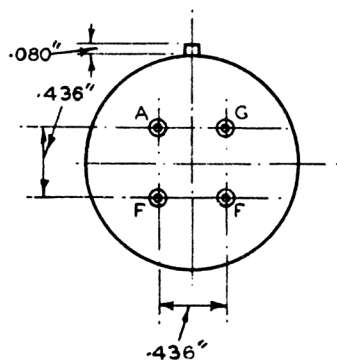
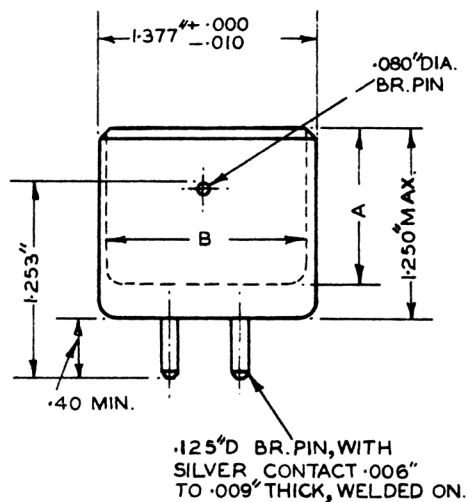
To be performed in addition to those applicable in K1001

	TEST CONDITIONS			TEST	LIMITS		No. Tested	Note
					Min.	Max.		
(a)	See K1001/AIII			<u>CAPACITANCES (pF)</u>				
	Links to H.P.	Links to L.P.	Links to E					
	4	1	2,3,5,6,7,8, 9,10,TC1,TC2	(i) Cag		7.0	6 per week	
	4	2,3	1,5,6,7,8,9, 10,TC1,TC2	(ii) Cae		5.0	6 per week	
	1	2,3	4,5,6,7,8,9, 10,TC1,TC2	(ii) Cge		7.0	6 per week	
(b)	Test Voltage 500 Volts, D.C.			<u>INSULATION (megohms)</u> (i) Anode to filament (ii) Anode to grid (iii) Grid to filament	100 500 500	- - -	1% 1% 1%	
	If(A)	Va	Vg					
(c)	0.25	-	-	Vf (V)	1.8	2.2	100%	
(d)	0.25	130	-1.5	Ra"x" (ohms)	40,000	60,000	100%	
(e)	0.23	130	-1.5	Ra"y" (ohms)	-	1.1"x"	100%	1
(f)	0.25	130	-1.5	μ	25.0	35.0	100%	
(g)	0.25	130	-1.5	Reverse Ig (μ A)	-	0.5	100%	
(h)	0.25	130	-7.0	Ia (μ A)	-	1.5	100%	

NOTE

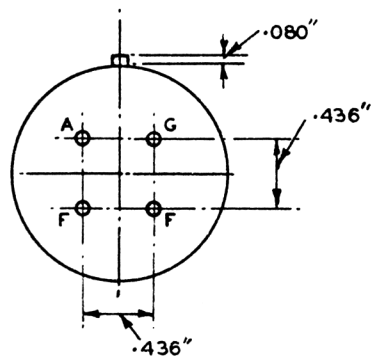
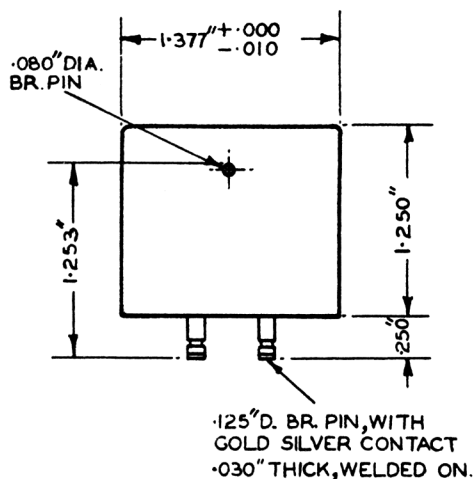
1. Re-adjust If with Va = Vg = 0

OUTLINE DRAWING



INTERNAL DIMENSIONS A & B
TO SUIT MANUFACTURERS
REQUIREMENTS.

FIG. 1. MOULDED TYPE.



MATERIAL: - NI. P. BRASS CYLINDER
WITH MOULDED INTERIOR.

FIG. 2. METAL SHELL TYPE.

SPECIFICATION GPO/CV1653/ISSUE 2.

AMENDMENT NO. 1.

Page 1.

DIMENSIONS

Amend the maximum limit dimension "A" to read 118 mm

Amend the maximum limit dimension "B" to read 46 mm

November, 1949.
WC.63885

T.V.C. Office.
(for G.P.O.)