

VALVE ELECTRONIC **CV 440**GENERAL POST OFFICE: E-IN-C (W)

Specification: GPO/CV440/Issue 1.	<u>SECURITY</u>	
Dated: September 1950.	<u>Specification</u>	<u>Valve</u>
To be read in conjunction with K 1001	Unclassified	Unclassified

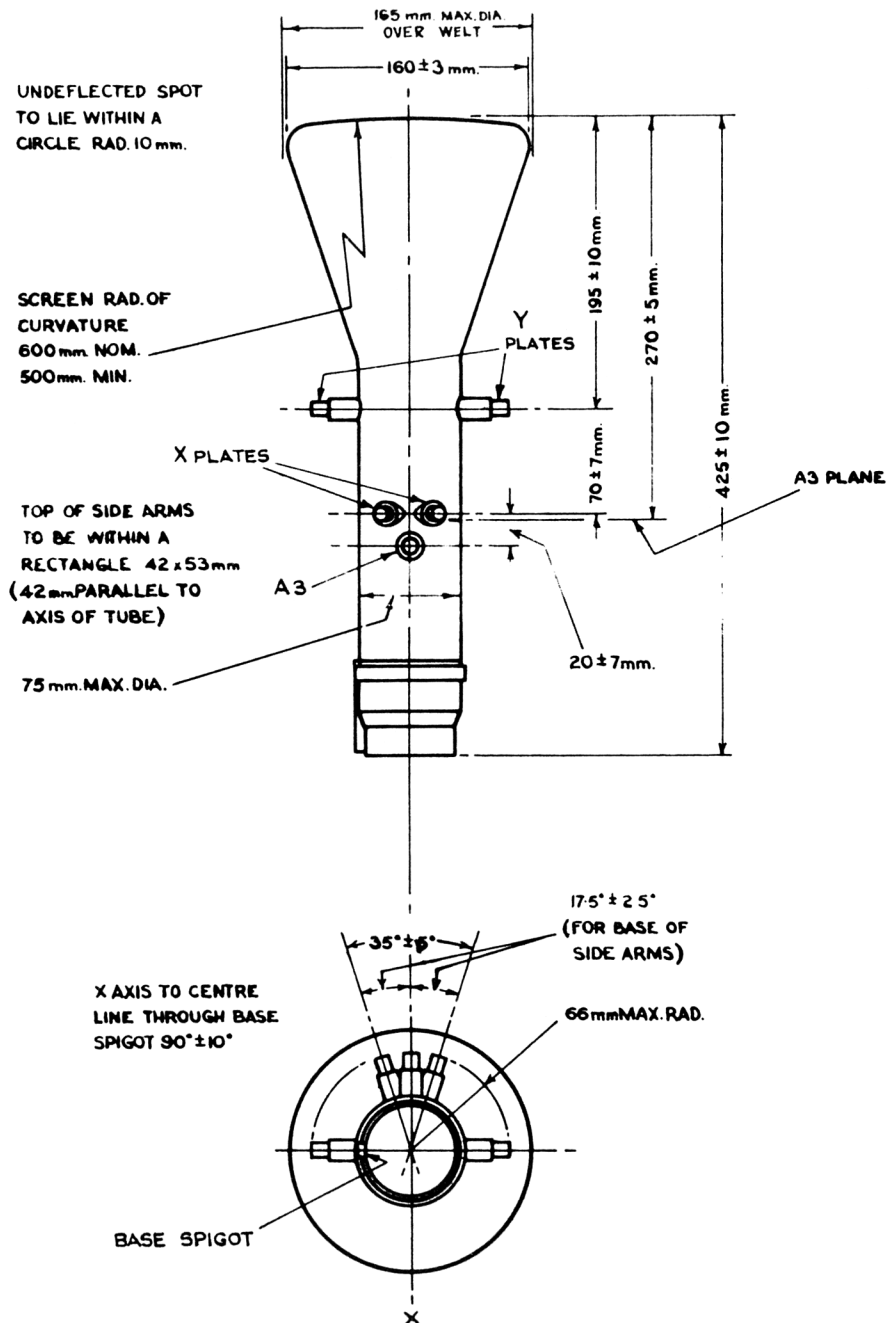
—————> indicates a change

<u>TYPE OF VALVE:</u> Electrostatic Deflection and Focus.				<u>MARKING</u> See K 1001/4	
<u>SCREEN</u> GGK				<u>Base</u>	
<u>ENVELOPE:</u> Internally coated with conductive coating. Coating connected to A3.				B12D	
<u>PROTOTYPE</u> 1601 ABC.				<u>Connections.</u> (Also see drawing on Page 3)	
<u>Rating.</u>		<u>Note.</u>		<u>Pin</u>	<u>Electrode</u>
Heater Voltage	(V)	4.0		1	G.
Heater Current	(A)	1.05		2	G.
Max final Anode Voltage	(KV)	3.5		3	H.
				4	H.
				5	A1.
				6	A2.
				7	No connection
				8	"
				9	"
				10	"
				11	"
				12	"
<u>Typical Operating Conditions.</u>				<u>Dimensions</u> (See drawing on page 3.)	
Final Anode Voltage	(KV)	3.5			
First Anode Voltage	(KV)	2.0			
X - plate Sensitivity (mm/v)		$\frac{1150}{Va3}$			
Y - plate Sensitivity (mm/v)		$\frac{700}{Va3}$			

	Test Conditions					Test.	Limits		No Tested	Note
	Vh	Va3 (KV)	Va2	Va1 (KV)	Vg		Min.	Max.		
a						<u>Capacitances.</u> 1. Each X or Y plate to all other electrodes. 2. One X plate to one Y plate. 3. Grid to all other electrodes.	Measurements to be recorded and collated.		100%	
b	4.0	0	0	0	0	Ih (A)	0.95	1.15	100%	
c	4.0	3.5	Adjust for optimum focus	2.0	Adjust as convenient	Va2 (V)	650	950	100%	
d	4.0	3.5	ditto	2.0	Adjust to cut-off	Vg (V)	-25	-75	100%	
e	4.0	3.5	ditto	2.0	Adjust	SCREEN EFFICIENCY (Candles/Watt)	.5	-	100%	1
f	4.0	3.5	ditto	2.0	Adjust as convenient	<u>DEFLECTION SENSITIVITY</u> 1 X Plate (mm/v) 2 Y Plate (mm/v)	950 620	1350 1350	100%	
g	4.0	3.5	ditto	2.0	ditto	<u>DEVIATION OF SPOT FROM CENTRE OF SCREEN</u> (mm)	-	10	100%	
h	4.0	3.5	ditto	2.0	ditto	<u>SPOT SIZE</u> (mm)	-	0.6	100%	
j	0	0	0	0	0	<u>ELECTRODE INSULATION RESISTANCE</u> 1 g/c (M Ω) 2 g/h (M Ω)	10 1	- -	100% 100%	
k	Set Vg to cut off as per test d. Then readjust Vg to Note 1.					Reduction in V mod as compared with test d.	12	25	100%	1

NOTE

1. Vg adjusted to give beam current 10 μ A and raster to be 10 cms X 10 cms.



SPECIFICATION GPO/CV440/ISSUE 1.

AMENDMENT NO. 1.

Page 2.
TEST (e)

For Va3 (KV) of 3.5 read 5.0.

December, 1952

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