

Amendment No. 1
to Specification CV2352 - Issue 3 - dated July, 1956

Page 5.


Amend radius of screen curvature on the "Y" axis
(short axis) to read 450 ± 100 mm instead
of 600 ± 50 mm radius.

Amend overall bulb height to read 66 ± 2 mm instead
of 66 ± 1.5 mm.

July, 1957.

T.V.C.
for R.R.E.

N.88393R.



Specification MOS/CV2352 Issue 3 Dated:- February 1956. To be read in conjunction with K1001	<u>SECURITY</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

← Indicates, a change

<u>TYPE OF VALVE:-</u> Cathode Ray Tube <u>TYPE OF DEFLECTION:-</u> Electrostatic Symmetrical or Asymmetrical <u>TYPE OF FOCUS:-</u> Electrostatic <u>BULB:-</u> Glass. Internally coated with conductive coating. <u>SCREEN:-</u> GG4 <u>PROTOTYPE:-</u> VCRX 390		<u>MARKING</u> See K1001/4	
		<u>BASE</u> B14A. See B.S.448: 1953	
		<u>CONNECTIONS</u>	
		<u>Pin</u>	<u>Electrode</u>
		1	h
		2	k
		3	g
		4	a2
		5	No connection
		6	Internal coating
		7	y1
		8	y2
		9	a3
		10	x2
		11	x1
		12	No connection
		13	a1
		14	h
<u>RATING</u>			
Heater voltage	(V)	6.3	
Heater current	(A)	0.3	
Max. Va1	(kV)	2.5	
Max. Va2	(kV)	1.1	
Max. Va3	(kV)	6.0	
Sensitivity, x plates	(mm/V)	$\frac{925}{Va3}$	
Sensitivity, y plates	(mm/V)	$\frac{1000}{Va3}$	
<u>TYPICAL OPERATING CONDITIONS</u>		<u>DIMENSIONS</u>	
Va1	(kV)	1.8	See drawing, page 5
Va2	(kV)	0.65	
Va3	(kV)	5.0	
<u>NOTES</u>			
A. For optimum focus quality the potential between the internal conductive coating and a3 must not exceed 10 volts.			

To be performed in addition to those applicable in K1001

Clause	Test Conditions	Test	Limits		No. Tested
			Min.	Max.	
a	See K1001/5A.13	Capacitances (pF) 1. Each x plate to all other electrodes 2. Each y plate to all other electrodes 3. Grid to all other electrodes 4. Each x plate to each y plate 5. Cathode to all other electrodes	-	20 16 10 1.5 10	2% (5)

FOR ALL TESTS GIVEN BELOW $V_h = 6.3V$

b		I_h (A)	0.28	0.66	100%
c	Cathode 100 volts positive to heater	Heater-cathode current (μA)	-	100	100%

→ FOR ALL TESTS GIVEN BELOW $V_{a1} = 1.8kV$, $V_{a3} = V_m = 5.0kV$
WITH ASYMMETRICAL X AND Y DEFLECTION VOLTAGES

d	With a raster scan of convenient size adjust V_{a2} for optimum overall focus and V_g for a light intensity of 0.06 candela measured through a Wratten 61N colour filter.	1. $-V_g$ (V) 2. Useful screen area. X direction (mm) Y direction (mm) 3. I_k (μA)	1 125 35	- - 200	100% 100% 100%
e	With an elliptical scan nominally 100 mm x 30 mm adjust V_{a2} for optimum focus and V_g as in (d).	1. Line width (mm) 2. V_{a2} (V)		0.7 600 700	100% 100%
f	V_{a2} as in (e) Adjust V_g for cut-off See K1001/5A.10.	1. $-V_g$ (V) 2. Increase in negative value of V_g compared with value noted in test (d) (V) 3. Within the range of V_g found in test f.1 to that in test d.1 the beam current shall increase continuously	25 -	70 30	100% 100% 100%

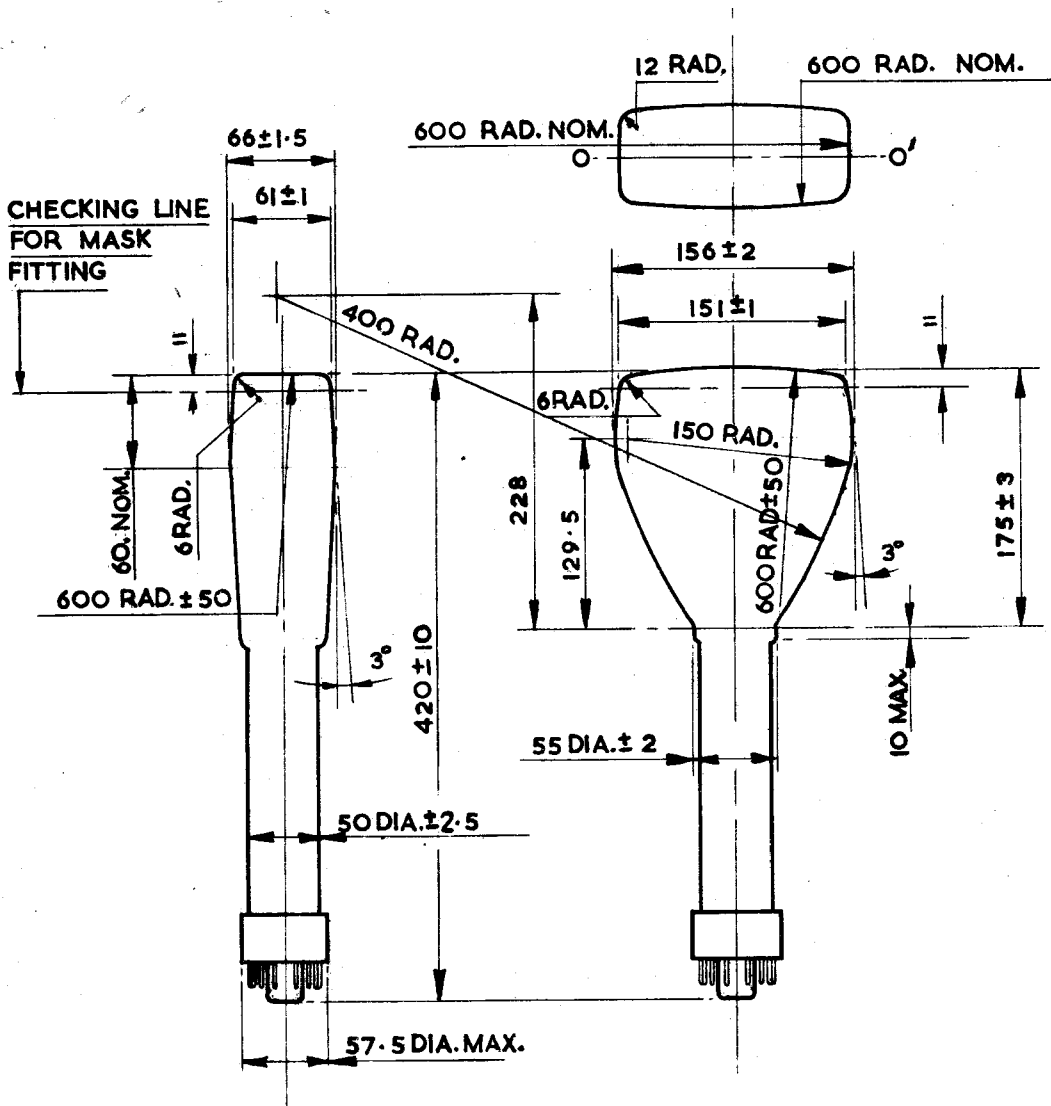
CV2352/3/2

Clause	Test Conditions	Test	Limits		No. Tested
			Min.	Max.	
g	See K1001/5A.3.2. (a) Vg -80V (b) Alternative method. Resistor 5M Ω	<u>Grid Insulation</u> (a) Leakage current (μ A) (b) Increase in volt- meter reading	-	16 100%	100%
h		<u>Deflection Sensitivities</u> 1. x plates (mm/V) 2. y plates (mm/V)	$\frac{850}{V_{a3}}$ $\frac{900}{V_{a3}}$	$\frac{1000}{V_{a3}}$ $\frac{1100}{V_{a3}}$	10% (10)
j	See K1001/5A.11.1.	Deviation of spot from centre of screen (mm)	-	7.5	100%
k		<u>Orientation of Deflection Axes</u> 1. Orientation of x axis of deflection relative to 00' on drawing 2. Angle between x and y axes of deflection	-2 $^{\circ}$ 88 $^{\circ}$	+2 $^{\circ}$ 92 $^{\circ}$	100% 100%
l	A screen area of at least 100 mm x 30 mm to be scanned.	<u>Trapezoidal Distortions</u> 1. Angle between adjacent sides. 2. Angle between opposite sides	87 $^{\circ}$ 177 $^{\circ}$	93 $^{\circ}$ 183 $^{\circ}$	10% (10)
m	With a defocussed raster scan to cover the useful screen (see test d.2), adjust Vg for any con- venient light intensity. See Note 1.	<u>Blemishes</u> Bubbles and Dead Spots 0.25 to 0.6 mm. 0.6 to 1.0 mm. greater than 1.0 mm.		10 5 0	100%
n	Air Ministry Test Set 42 See K1001/11.5.	<u>Vibration</u>			T.A.
o	All conditions as in clause "e" but with the internal conductive coating + and - 10 volts with respect to a ₃	<u>Line width</u> (mm)		0.7	T.A. ←

NOTE

1. If two or more blemishes are separated by a distance not greater than the maximum dimension of the largest blemish in a group, then the group of blemishes shall be considered as one blemish of dimension equal to the maximum overall dimension of the group.

ALL DIMENSIONS IN MILLIMETRES.



LOOKING AT THE SCREEN WITH THE OO' LINE HORIZONTAL AND PINS 9&10 OF THE BASE UPPER-MOST A POSITIVE VOLTAGE APPLIED TO TERMINAL XI SHALL DEFLECT THE SPOT TO THE LEFT & A POSITIVE VOLTAGE APPLIED TO TERMINAL YI SHALL DEFLECT THE SPOT UPWARDS.

LIMITING POSITIONS OF ORIENTATION OF OO' WITH RESPECT TO BASE.

