

Amendment No. 1

Page 4

Amend diameter of the neck of the tube shown in the drawing to read:-

32.5 mm Min.

35.5 mm Max.

instead of 35 ± 1 mm.

July 1957

T.V.C.
for A.S.R.E.

N88360.

ADMIRALTY SIGNAL AND RADAR ESTABLISHMENT

Specification AD/CV1868 Issue No. 1 Dated : 5.1.55 To be read in conjunction with K1001	<u>SECURITY</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

<p><u>TYPE OF VALVE:</u> Cathode Ray Tube</p> <p><u>TYPE OF DEFLECTION:</u> Magnetic</p> <p><u>TYPE OF FOCUS:</u> Magnetic</p> <p><u>SCREEN:</u> O08 with aluminium backing</p> <p><u>BULB:</u> Glass. Internally coated with conductive coating.</p> <p><u>SCREEN DIAMETER:</u> 5 inches.</p> <p><u>PROTOTYPES:</u> Mullard - MF13 Cinema Television - 5T03A</p>	<p><u>MARKING</u> See K1001/4</p> <p><u>BASE</u> B8 - 0</p> <p>(See B.S. 448)</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------

<u>RATING</u>		Note	Pin	<u>CONNECTIONS</u>	
				Electrode	
Heater Voltage (V)	6.3		1	-	
Heater Current (A)	0.3		2	H	
	or		3	A1	
	0.6		4	-	
Max. First Anode Voltage (V)	500	A	5	G	
Max. Second Anode Voltage (kV)	11	A	6	-	
Max. Heater-Cathode Voltage (V) (heater negative to cathode)	150	A	7	C	
			8	H	
			SC	A2	
<p><u>SIDE CONTACT - CT7</u> See B.S.448, Sect. 6/1.7</p>					
<p><u>DIMENSIONS</u> See drawing, Page 4</p>					

<u>NOTES</u>	
A.	Absolute Maximum Value.
B.	The focussing requirements and the amount of deflection defocus will be checked on the Type Approval samples. After Type Approval has been granted, the construction of the tubes must remain as in the Type Approved samples.
C.	The fluoride screen shall not contain beryllium.

TESTS

To be performed in addition to those applicable in K1001

	Test Conditions				Test	Limits		No. Tested
	Vh (V)	Va2 (kV)	Va1 (V)	Vg (V)		Min.	Max.	
a	See K1001/5A.13				Capacitances (pF) Grid to all other electrodes Cathode to all other electrodes	-	10	5% (20)
b	6.3	0	0	0	Ih (A)	0.28	0.65	100%
c	6.3	7.0	450	Adjust to Cut Off	Cut Off Negative Vg (V)	45	110	100%
d	6.3	7.0	450	Adjust	Change in Vg from value found in test (c) (V)	-	28	100%
	Spot to be deflected off useable screen area or scanned. Adjust Vg for Ib = 30 μ A.							
e	6.3	7.0	450	-	Line Width (mm) (Measured at centre of trace)	-	0.5	(100%)
	Focus: Adjusted to optimum with centre of air gap of focus coil 78 mm from ref. line. (See drawing) Deflection: A linear line scan of 10 kp/s and a line length of 100 mm in the X and Y directions successively. Grid: To be pulsed positively from cut off, with amplitude equal to the value obtained in test (d), with pulse duration of 100 μ secs. (nominal) and with repetition rate not exceeding 50 p.p.s.							
f	6.3	7.0	450	Adjust	Light Output Beam current for light output of 0.08 candela. (μ A)	-	7.5	100%
	Vg adjusted so that light output is 0.08 candela from a linear raster 10 cms x 10 cms							
g	6.3	7.0	450	-110	Grid Insulation (a) Leakage current (μ A) (b) Increase in volt-meter reading.	-	11	100%
	or (b) Using recommended method of K1001/5A 3.2 and 10 megohms resistor.					-	100%	100%

CV1868/1/2

TESTS

To be performed in addition to those applicable in K1001

	Test Conditions				Test	Limits		No. Tested
	Vh (V)	Va2 (kV)	Va1 (V)	Vg (V)		Min.	Max.	
h	6.3	-	-	-	<u>Heater-Cathode Insulation</u> Leakage current (µA) 150 Volts applied between heater and cathode.	-	150	100%
j	6.3	7.0	450	Adjust	<u>Useful Screen Area Diameter</u> (mm)	108	-	100%
k	6.3	7.0	450	-do-	<u>Spot Displacement</u> Deviation of unfocussed spot from centre of screen. (mm)	-	8	100%
l	6.3	7.0	450	-do-	<u>Persistence</u> Time taken from cessation of excitation for light output to fall to 0.5% of its initial value. (secs)	120	-	5% (20)

CV1868/1/3

