

Specification MAP/CV1516  
Issue 5. Dated 10.8.50.  
To be read in conjunction with K1003

SECURITY	
Specification	Valve
UNCLASSIFIED	UNCLASSIFIED

—————> Indicates a change

TYPE OF VALVE - Cathode Ray Tube				<u>MARKING</u>	
TYPE OF DEFLECTION - Magnetic				See K1001/4	
TYPE OF FOCUS - Magnetic					
BULB - Internally coated with conductive coating				<u>BASE</u>	
SCREEN - BYL 46				I.O.	
<u>RATING</u>				Note	<u>CONNECTIONS</u>
					Pin
Heater Voltage	(V)	4.0		1	No Connection
				2	Heater
Heater Current	(A)	1.0		3	Pin Omitted
				4	Pin Omitted
Max. Anode Voltage	(kV)	5.0		5	Grid
				6	Pin Omitted
				7	Heated
				8	Cathode
				Side Contact	Anode
				Side Contact - Plug cap shall conform to BS3448	
				<u>DIMENSIONS</u>	
				See Drawing on Page 4	

To be performed in addition to those applicable in K1003

Test Conditions				Test	Limits		No. Tested	Note
					Min.	Max.		
a	See K1003/5.12			<u>CAPACITANCES</u> (pF) Grid to all other electrode	-	25	5% (5)	
b	Vh	Va(kV)	Vg	Ih (A)	-	1.2	100%	
	4.0	0	0					
c	4.0	4.0	Adjust to cut off Focus adjusted to optimum See Note (1)	Vg (V) Value to be noted	-30	-65	100%	1
d	4.0	4.0	- Focus adjusted for optimum. Vg adjusted to give a light output of 0.1 candles when viewed through a G2 filter, (Type 26, Ref. 10AB/474) on a close raster of convenient size.	(1) Vg (V) (2) Change in value of Vg from test (c) (V)	-1 -	- 25	100% 100%	2
e	4.0	4.0	As per test "a" Focus adjusted for optimum. <u>DEFLECTION</u> - Sine wave line scan of 500/s nom. and a line length of 94mm. Measure in "X" and "Y" directions successively at the centre of the track.	(1) Focus Coil Current (mA) (2) Line Width	80 -	120 1.3	T.A. 100%	
f	4.0	4.0	-65 See K1003/5.4.2 Resistor = 10M $\Omega$	<u>Grid Insulation</u> (1) Leakage current ( $\mu$ A) (2) Increase in voltmeter reading	- -	6.5 100%	100%	
g	4.0	4.0	Any convenient value Focus adjusted for optimum. Deflection to cover stated circle centred on centre of screen	<u>Useful Screen Area</u> Diameter (mm)	190	-	100%	

Test Conditions				Test	Limits		No. Tested	Note
					Min.	Max.		
h	4.0	4.0	Near cut-off No focussing coil energisa- tion	Deviation of spot from centre of screen (mm)	-	10	100%	
j	4.0	4.0	Any conven- ient value No focussing coil energisa- tion. Deflecting fields to cover the useful screen area.	The screen shall not be worse for grain- iness and uniformity than a standard tube or pattern			100%	
k	4.0	4.0	- Test to be done in Test Set 331, using a close raster of convenient size.	Afterglow (secs)	30	60	10%	

NOTES

1. For the purpose of tests (c), (d), (e), (g), (h), (j), (k), the focussing fields required are to be obtained by means of Rotating Gear Unit, Magnetic, Ref.No.10QB/66 with the focussing coil in its mean position.

The tube will be mounted with the front edge of the coil assembly mounting set 1.5mm from axis AA (See Drawing on Page 4.)

2. Within the range of grid voltage from cut-off to light output, the beam current shall increase continuously.

