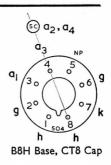


TELEVISION PICTURE TUBE



GENERAL

Twin Panel	Tinted Grey Glass			
Deflection Angle	110° Diagonal			
Rectangular Face	23 in. Diagonal			
Light Transmission				
Aluminised Screen	White Fluorescence			
Electrostatic Focus	Magnetic Deflection			
Short Neck	Straight Gun-non ion trap			
External Condu	uctive Coating			
Heater Current	I _h 0.3 A			

6.3

The cathode ray tube heater should always be connected at the chassis end if used in a series heater chain.

DESIGN CENTRE RATINGS

Martiner Consul and County Anada Valence	V	20* kV
Maximum Second and Fourth Anode Voltage	$V_{a2,a4(max)}$	20" KV
Minimum Second and Fourth Anode Voltage	$V_{a2,a4(min)}$	13 kV
Maximum Third Anode Voltage	$V_{a3(max)}$	+1000 to -500 V
Maximum First Anode Voltage	$V_{a1(max)}$	700 V
Maximum Heater to Cathode Voltage, Heater Negative (d.c.)	V _{h-k(max)}	250 V
Maximum Peak Heater to Cathode Voltage, Heater Negative	Vh-k(pk)max	400†‡ V
Maximum Impedance Grid to Cathode (50c/s)	$Z_{g-k(max)}$	0·5 MΩ
Maximum Resistance Grid to Cathode All voltages referred to cathode.	$R_{g-k(max)}$	1·5 MΩ

^{*} For $I_{a2+a4}=0$.

Heater Voltage

Note: The A59-13W is the AW59-91 with the addition of a tinted glass panel.

Tubes incorporating a B8H sparkguard base will have a suffix S after the type number. For details of the sparkguard base see separate sheet.

[†] Absolute rating.

[‡] During a warming-up period not exceeding 45 seconds.

CATHODE RAY TUBES



INTER-ELECTRODE CAPACITANCES

Cathode to all Grid to all	C _{k-all} C _{g-all}	§ 3∙0 7∙0	φ 3·5 8·5	pF pF
Second and Fourth Anode to External Conductive Coating (approx.)	Ca2,a4-M	2000		рF
finter electrode conscitences with holder	anacitance balance	ad aut		

§ Inter-electrode capacitances with holder capacitance balanced out. ϕ Total inter-electrode capacitances including AEI B8H holder VH68/81 (8 pin).

TYPICAL OPERATION—Grid Modulation (Voltage referred to cathode)

				,		
$V_{a2,a4-k}$	1	8	1	8	k۷	
V_{a1-k}	40	00	50	0	٧	
l_{a2+a4}	350	500	350	500	μA	
V_{a3-k}	0 to	400	0 to	400	٧	
	35.5	40.5	39.5	45	٧	
aster V _{g-k}	-5	57	-6	9	٧	
	V _{a2,a4-k} V _{a1-k} I _{a2+a4} V _{a3-k}	V _{a2,a4-k} 1 V _{a1-k} 40 I _{a2+a4} 350 V _{a3-k} 0 to 35.5	V _{a2,a4-k} 18 V _{a1-k} 400 I _{a2+a4} 350 500 V _{a3-k} 0 to 400 35.5 40.5	V _{a2,a4-k} 18 1. V _{a1-k} 400 50 I _{a2+a4} 350 500 350 V _{a3-k} 0 to 400 0 to	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	V _{a1-k} 400 500 V I _{a2+a4} 350 500 350 500 μA V _{a3-k} 0 to 400 0 to 400 V 35·5 40·5 39·5 45 V

TYPICAL OPERATION—Cathode Modulation (Voltage referred to grid)

Second and Fourth Anode Voltage	$V_{a2,a4-g}$	1	8	1	8	kΥ
First Anode Voltage*	V_{a1-g}	40	0	50	0	V
Beam Current	l_{a2+a4}	350	500	350	500	μA
Third Anode Voltage Range for Focus	V_{a3-g}	0 to	400	0 to	400	V
Average Peak to Peak Picture Modulating Voltage		31 · 5	35.5	34.5	39.	5 V
Cathode to Grid Voltage for Cut-off of Ras (See charts for limits)	ster V _{k-g}	5	1	6	2	٧

* Within this range a higher First Anode Voltage will provide an improved focus performance.

PICTURE CENTRING

Maximum magnet flux density at centre of neck should not be less than	17 G
Maximum distance of centre of magnetic field from reference line	53 mm

NOTE

If this tube is operated at voltage in excess of 16kV, x-ray radiation shielding may be necessary to avoid possible danger of personal injury from prolonged exposure at close range.

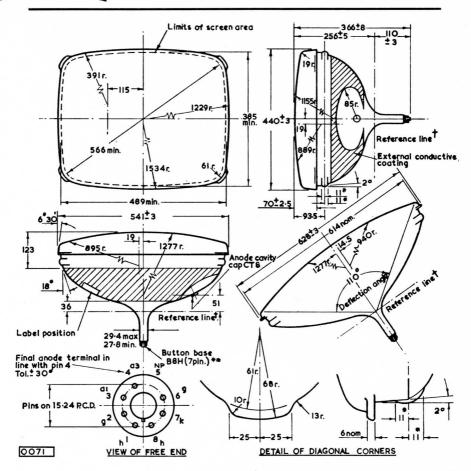
DEFLECTION ANGLES

Height	82°
Width	99°
Diagonal	110°

WEIGHT

37.5 lb (17 kg) Approximate Single Tube Weight: Net

BRIMAR



All dimensions in mm.

Not to be scaled.

Notes:

* During the face sealing operation the glass in this area (total 22mm) may be disturbed. As the shape of the contour within this area may be either convex or concave the bulb should not be gripped within this region unless special precautions are taken (such as the use of resilient packing material).

**The socket for the B8H button base should not be rigidly mounted, it should have flexible leads and be allowed to move freely. The design of the socket should be such that the wiring cannot impress lateral strains through the socket contacts on the base. Bottom circumference of base wafer will fall within a circle concentric with the bulb axis and have a diameter of 44mm.

† Determined by Reference Gauge No.16 (JEDEC 126).

The tube may be supported by clamping to the mounting lugs provided at each corner of the protective panel.

Tube mounting clamps must be spaced from the tube by the use of cushioning pads.

April, 1966



