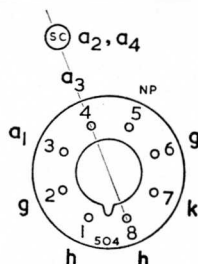


TELEVISION PICTURE TUBE



B8H Base, CT8 Cap

GENERAL

Twin Panel	Tinted Grey Glass
Deflection Angle	110° Diagonal
Rectangular Face	23 in. Diagonal
Light Transmission	45% Approximately
Aluminised Screen	White Fluorescence
Electrostatic Focus	Magnetic Deflection
Short Neck	Straight Gun—non ion trap

External Conductive Coating

Heater Current	I_h	0.3	A
Heater Voltage	V_h	6.3	V

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

DESIGN CENTRE RATINGS

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	$V_{h-k(pk)max}$	400†‡	V
Maximum Impedance Grid to Cathode (50c/s)	$Z_{g-k(max)}$	0.5	MΩ
Maximum Resistance Grid to Cathode	$R_{g-k(max)}$	1.5	MΩ

All voltages referred to cathode.

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

† Absolute rating.

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

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.

INTER-ELECTRODE CAPACITANCES

Cathode to all	C_{k-all}	$\frac{\phi}{\phi}$ 3.0	3.5	pF
Grid to all	C_{g-all}	7.0	8.5	pF
Second and Fourth Anode to External Conductive Coating (approx.)	$C_{a2,a4-M}$	2000		pF

§ 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)

Second and Fourth Anode Voltage	$V_{a2,a4-k}$	18	18	kV
First Anode Voltage*	V_{a1-k}	400	500	V
Beam Current	I_{a2+a4}	350 500	350 500	μA
Third Anode Voltage Range for Focus	V_{a3-k}	0 to 400	0 to 400	V
Average Peak to Peak Picture Modulating Voltage		35.5 40.5	39.5 45	V
Grid to Cathode Voltage for Cut-off of Raster (See charts for limits)	V_{g-k}	-57	-69	V

TYPICAL OPERATION—Cathode Modulation (Voltage referred to grid)

Second and Fourth Anode Voltage	$V_{a2,a4-g}$	18	18	kV
First Anode Voltage*	V_{a1-g}	400	500	V
Beam Current	I_{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 Raster (See charts for limits)	V_{k-g}	51	62	V

* 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

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