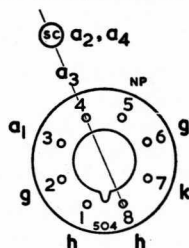


RIMGUARD II TELEVISION PICTURE TUBE



B8H Base, CT8 Cap

GENERAL

Rectangular Face	19 in. Diagonal
Reinforced Envelope	Integral Mounting Lugs
Electrostatic Focus	Magnetic Deflection
Deflection Angle	110° Diagonal
Aluminised Screen	White Fluorescence
Grey Glass	50% Transmission (Approx.)
Straight Gun	Non Ion Trap

External Conductive Coating

Heater Voltage	V_h	6.3	V
Heater Current	I_h	0.3*	A

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 (50 Hz)	$Z_{g-k(max)}$	0.5	M Ω
Maximum Resistance, Grid to Cathode	$R_{g-k(max)}$	1.5	M Ω

All voltages referred to cathode.

* The CRT heater should always be connected at the chassis end in a series heater chain.

† For $I_{a2+a4}=0$.

‡ Absolute rating.

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

The A47-25W is electrically identical to the AW47-91.

The mechanical fixing of this tube is interchangeable with other existing reinforced tubes.

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}	3.0	3.5	pF
Grid to all	C_{g-all}	7.0	8.5	pF
Anode 2 and Anode 4 to External Conductive Coating, M_1 (approx.)	$C_{a2,a4-M1}$	1000		pF
Anode 2 and Anode 4 to Shell, M_2 (approx.)	$C_{a2,a4-M2}$	250		pF

* Inter-electrode capacitances with holder capacitance balanced out.

† Total inter-electrode capacitances including an 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 chart 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 chart 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

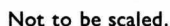
DEFLECTION ANGLES

Height	82°
Width	99°
Diagonal	110°

TUBE WEIGHT (approx.)—Net 191b (8.6 kg)

Note :

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



† Determined by reference line gauge No. 16 (JEDEC No. 126).

