

September 15, 1965

QUICK REFERENCE DATA

110° MAGNETIC DEFLECTION
10.125" × 7.625" SCREEN SIZE
4.375" NECK LENGTH

BANDED
IMPLOSION PROTECTION
LOW G2 VOLTAGE (30 VOLTS)

6.3 VOLT, 450 MA HEATER
SPHERICAL GRAY FILTER GLASS
ELECTROSTATIC FOCUS

DETAILED DATA

ELECTRICAL

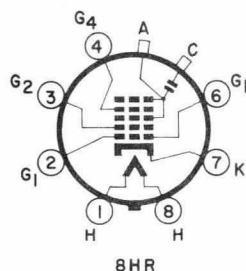
Focusing Method	Low Voltage Electrostatic
Deflection Method	Magnetic
Deflection Angles (Approx.):	
Diagonal	110 Degrees
Horizontal	99 Degrees
Vertical	80 Degrees
Direct Interelectrode Capacitances:	
Cathode to All other Electrodes (Approx.)	5 pF
Grid No. 1 to All other Electrodes (Approx.)	6 pF
External Conductive Coating to Anode:	
Minimum	800 pF
Maximum	1000 pF
Resistance Between External Conductive Coating and Implosion Protection Hardware (minimum)	5 Megohms
Heater Current at 6.3 Volts	450 ± 5% mA
Heater Warm-up Time (Note 1)	11 Seconds

OPTICAL

Phosphor Number	Aluminized P4
Light Transmittance at Center (Approx.)	48%

MECHANICAL

Over-all Length	9.348" ± 0.250"
Neck Length	4.375" ± 0.125"
Greatest Dimensions of Tube:	
Diagonal	12.425" ± 0.100"
Width	10.987" ± 0.100"
Height	8.589" ± 0.100"
Minimum Useful Screen Dimensions (Projected):	
Diagonal	11.625"
Horizontal Axis	10.125"
Vertical Axis	7.625"
Area	74 Sq. Inches
Implosion Protection	Banded
Bulb Contact	J1-21
Base	B7-208
Basing	8HR
Net Weight	6 Pounds
Bulb	J 99 C1



RATINGS

Design Maximum System	
Unless Otherwise Specified, Voltage Values are Positive and Measured with Respect to Grid 1.	
Maximum Anode Voltage	16000 Volts
Minimum Anode Voltage	9000 Volts
Maximum Grid 4 (Focusing Electrode) Voltage	+1100, -550 Volts
Maximum Grid 2 Voltage	60 Volts
Minimum Grid 2 Voltage	20 Volts
Voltage:	
Maximum Negative Bias Value	0 Volts
Maximum Negative Peak Value	2 Volts
Maximum Positive Bias Value	154 Volts
Maximum Positive Peak Value	220 Volts
Maximum Heater Voltage	6.93 Volts
Minimum Heater Voltage	5.67 Volts
Maximum Heater-Cathode Voltage:	
Heater Negative with Respect to Cathode:	
During Warm-up Period not to Exceed 15 Seconds	450 Volts
After Equipment Warm-up Period	200 Volts
Heater Positive with Respect to Cathode	200 Volts

LIMITING CIRCUIT VALUES

Maximum Grid 1 Circuit Resistance	1.5 Megohms
Minimum Grids 2 & 4 Circuit Resistance (Note 2)	10000 Ohms

TYPICAL CATHODE DRIVE OPERATION

Unless Otherwise Specified, All Voltage Values are Positive with Respect to Grid 1.	
Anode Voltage	12000 Volts
Grid 4 Voltage (Focusing Electrode) (Note 3)	0 to 400 Volts
Grid 2 Voltage	30 Volts
Cathode Voltage for Raster Cutoff	30 to 45 Volts

NOTES

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying 4 times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to 3 times rated heater voltage divided by rated heater current.
2. Protective resistance in the grids 2 & 4 circuits is advisable to prevent damage.
3. With the combined Grid No. 1 bias voltage and video-signal voltage adjusted to give an anode current of 150 microamperes on a 10.125" by 7.625" pattern from type 2F21 monoscope or equivalent. Individual tubes will have satisfactory focus at some value between 0 and 400 volts.

