

**CHARACTERISTICS**

**GENERAL DATA**

Focusing Method . . . . .	Electrostatic
Deflection Method . . . . .	Magnetic
Deflection Angles (approx.)	
Horizontal . . . . .	85 Degrees
Diagonal . . . . .	90 Degrees
Phosphor	
14RP4 . . . . .	P4
14RP4A . . . . .	Aluminized P4
Fluorescence . . . . .	White
Persistence . . . . .	Short to Medium
Faceplate . . . . .	Gray Filter Glass
Light Transmittance (approx.) . . . . .	78 %

**ELECTRICAL DATA**

Heater Voltage . . . . .	6.3 Volts	
Heater Current . . . . .	0.6 ± 5% Ampere	
Heater Warm-up Time <sup>1</sup> . . . . .	11 Seconds	
Direct Interelectrode Capacitances (approx.)		
Cathode to All Other Electrodes . . . . .	5 μmf	
Grid No. 1 to All Other Electrodes . . . . .	6 μmf	
External Conductive Coating to Anode <sup>2</sup> . . . . .	1200 μmf	Max.
	800 μmf	Min.
Ion Trap Magnet . . . . .	External, Single Field Type	

**MECHANICAL DATA**

Minimum Useful Screen Dimensions (Maximum Assured) . . . . .	12 <sup>1</sup> / <sub>16</sub> x 9 <sup>1</sup> / <sub>2</sub> Inches
Minimum Useful Screen Area . . . . .	104 Sq. Inches
Bulb Contact (Recessed Small Cavity Cap) . . . . .	J1-21
Base (Small Shell Duodecal 6-Pin) . . . . .	B6-63
Basing . . . . .	12L
Weight (approx.) . . . . .	8.5 Pounds

**RATINGS**

**MAXIMUM RATINGS (Absolute Maximum Values)**

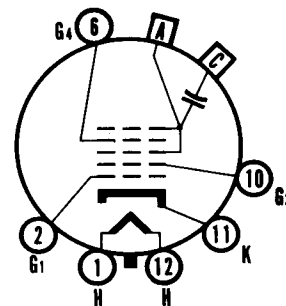
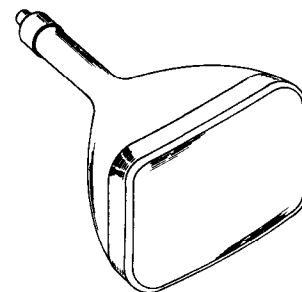
Anode Voltage . . . . .	15,400 Volts	dc
Grid No. 4 Voltage (Focusing Electrode) . . . . .	-550 to +550 Volts	dc
Grid No. 2 Voltage . . . . .	440 Volts	dc
Grid No. 1 Voltage		
Negative Bias Value . . . . .	120 Volts	dc
Negative Peak Value . . . . .	175 Volts	
Positive Bias Value . . . . .	0 Volts	dc
Positive Peak Value . . . . .	2 Volts	
Peak Heater-Cathode Voltage		
Heater Negative with Respect to Cathode . . . . .	200 Volts	
Heater Positive with Respect to Cathode . . . . .	200 Volts	

**TYPICAL OPERATING CONDITIONS**

Anode Voltage . . . . .	12,000 Volts	dc
Grid No. 4 Voltage for Focus . . . . .	-50 to +350 Volts	dc
Grid No. 2 Voltage . . . . .	300 Volts	dc
Grid No. 1 Voltage Required for Cutoff <sup>3</sup> . . . . .	-26 to -70 Volts	dc
Ion Trap Magnet Current (Average) <sup>4</sup> . . . . .	35 Ma	dc
Field Strength of PM Ion Trap Magnet <sup>5</sup> . . . . .	40 Gausses	Min.

**QUICK REFERENCE DATA**

- Television Picture Tube
- 14" Direct Viewed
- Rectangular Glass Type
- Spherical Faceplate
- Gray Filter Glass
- Magnetic Deflection
- Electrostatic Focus
- Single Field Ion Trap
- External Conductive Coating
- 14RP4A has Aluminized Screen



12-1

**SYLVANIA ELECTRIC  
PRODUCTS INC.**

**TELEVISION PICTURE TUBE  
DIVISION  
SENECA FALLS, NEW YORK**

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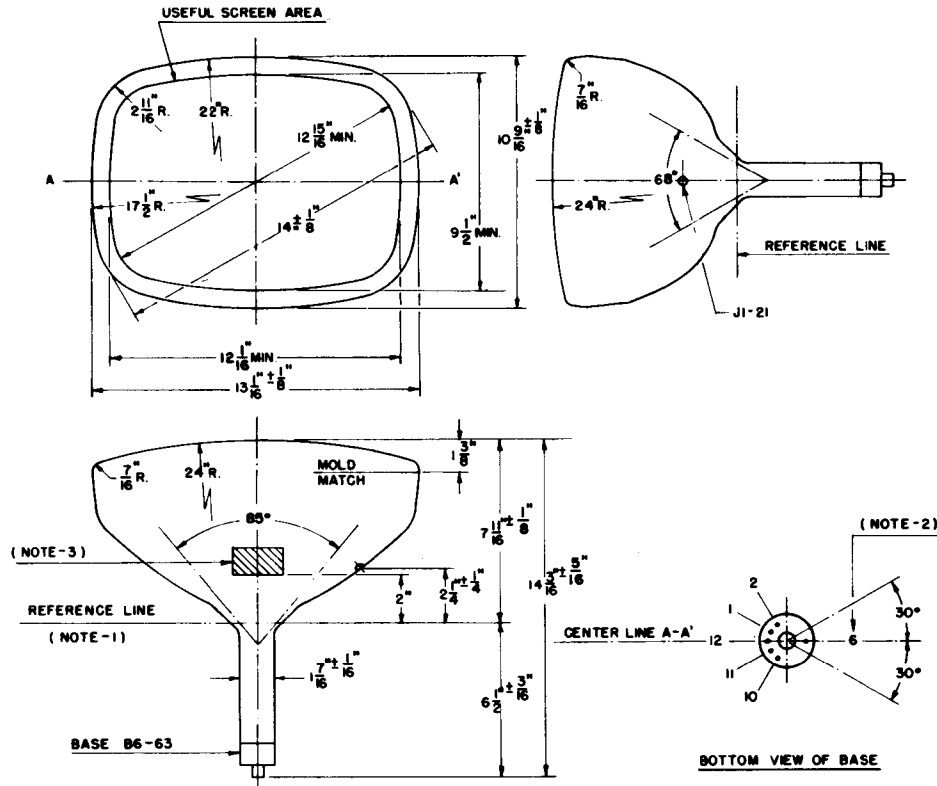
PAGE 1 OF 3

**CIRCUIT VALUES**

Grid No. 1 Circuit Resistance . . . . . 1.5 Megohms Max.

**NOTES:**

1. *Heater warm-up time is the time required for the voltage across the heater terminals to increase to 5.0 volts in the JETEC test circuit, with  $E = 25$  volts and series  $R = 31.5$  ohms.*
2. *External conductive coating must be grounded.*
3. *Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be about 5 volts more negative.*
4. *For JETEC Ion Trap Magnet No. 117 with pole pieces centered over Grid No. 2 on mount, and rotated for maximum brightness.*
5. *For typical PM ion trap magnet with field strength tolerance of  $\pm 3$  gauss.*



**DIAGRAM NOTES:**

1. Reference line is determined by the plane C-C' of the reference line gauge (JETEC No. 116) when the gauge is resting on the glass cone.
2. Base pin No. 6 aligns with anode contact terminal J1-21 within 30 degrees.
3. Contact area  $2'' \times 2''$  for external conductive coating, located 90 degrees counterclockwise from anode contact as viewed from base end of tube.

**WARNING:**

X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated at higher than the manufacturer's Maximum Rated Anode Voltage or 16,000 volts, whichever is less.

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