

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 ¹	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 ²	1200 μmf	Max.
	800 μmf	Min.
Ion Trap Magnet	External, Single Field Type	

MECHANICAL DATA

Minimum Useful Screen Dimensions	
(Maximum Assured)	12 $\frac{1}{16}$ x 9 $\frac{1}{2}$ 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)

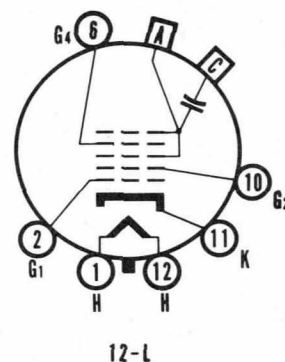
Anode Voltage	15,400 Volts	dc
Grid No. 4 Voltage		
(Focusing Electrode)	-550 to +550 Volts	dc
Grid No. 2 Voltage	440 Volts	dc
Grid No. 1 Voltage		
Negative Bias Value	120 Volts	dc
Negative Peak Value	175 Volts	
Positive Bias Value	0 Volts	dc
Positive Peak Value	2 Volts	
Peak Heater-Cathode Voltage		
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 ³	-26 to -70 Volts	dc
Ion Trap Magnet Current (Average) ⁴	35 Ma	dc
Field Strength of PM Ion Trap Magnet ⁵	40 Gauss	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



SYLVANIA ELECTRIC
PRODUCTS INC.

TELEVISION PICTURE TUBE
DIVISION

SENECA FALLS, NEW YORK

Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA

JUNE, 1957

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 ± 3 gauss.*

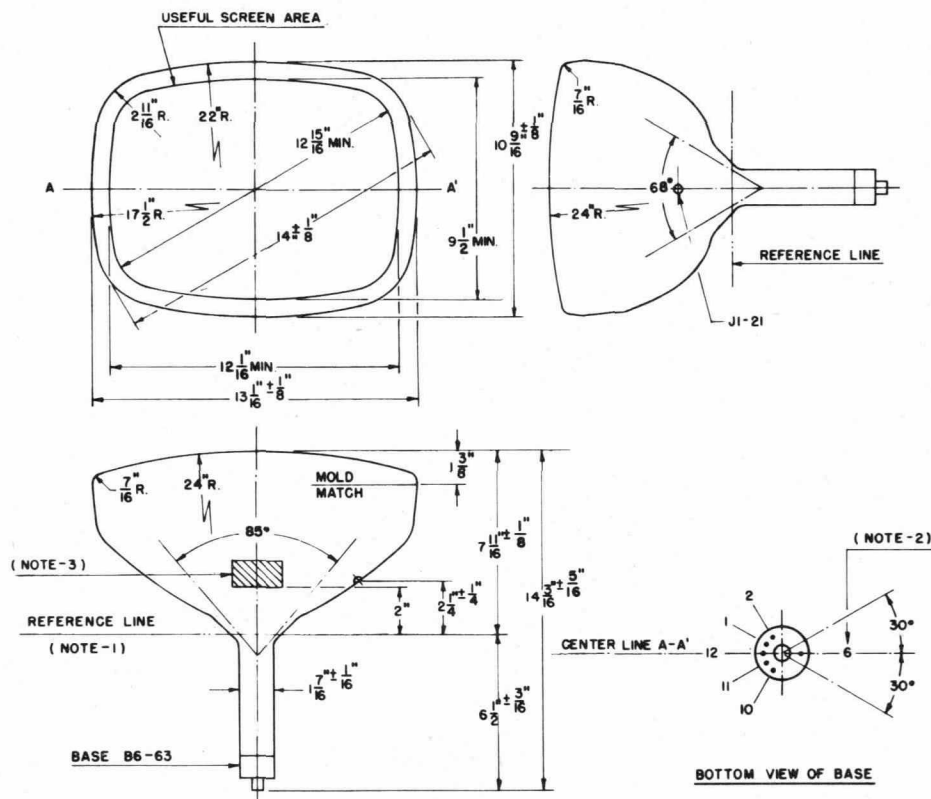


DIAGRAM NOTES:

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.