

Cathode-Ray Tube Type 1ORP4

The 1ORP4 is an all glass, electrostatic focus and magnetic deflection direct view picture tube for television applications. The focusing voltage required is from -0.4% to \pm 2.2% of the anode voltage. It has a clear-glass faceplate and a metal-backed screen to prevent screen burning by ions and to increase light output. An external conductive coating serves as a filter capacitor when grounded.

GENERAL CHARACTERISTICS

Electrical Data

Heater Voltage	6.3	Volts
Heater Current	0.6 \pm 10%	Amperes

Focusing Method	Electrostatic	
Deflecting Method	Magnetic	
Deflecting Angle (Approx.)	50	Degrees

Phosphor ¹	No. 4
Fluorescence	White
Persistence	Medium

Direct Interelectrode Capacitances, Approx.

Cathode to all other electrodes	5	uuf
Grid No.1 to all other electrodes	6	uuf
External Conductive Coating to Anode	(3500 Max. 750 Min.)	uuf uuf

Mechanical Data

Overall Length	16 1/2 \pm 1/4	Inches
Greatest Diameter of Bulb	10 1/2 \pm 1/8	Inches
Minimum Useful Screen Diameter	9 1/8	Inches
Bulb Contact (Recessed Small Cavity Cap)	J1-21	
Base (Small Shell Duodecal 6-pin)	B6-63	
Basing	12L	
Bulb Contact Alignment	J1-21 Contact Aligns with Vacant Pin Position #3	\pm 30 Degrees

MAXIMUM RATINGS Design Center Values

Final Anode Voltage ²	16,000 Max.	Volts D-C
Grid No.4 (Focusing Electrode) Voltage Range ³	-64 to \pm 350	Max. Volts D-C
Grid No.4 Voltage ⁴	-500 to \pm 1000	Max. Volts D-C
Grid No.2 Voltage	500 Max.	Volts D-C
Grid No.1 Voltage		
Negative-Bias Value	125 Max.	Volts D-C
Positive-Bias Value	0 Max.	Volts D-C
Positive-Peak Value	2 Max.	Volts
Peak Heater-Cathode Voltage:		
Heater Negative with Respect to Cathode		
During Warm-up Period Not to Exceed 15 seconds	410 Max.	Volts D-C
After Equipment Warm-up Period	180 Max.	Volts D-C
Heater Positive with Respect to Cathode	180 Max.	Volts D-C

The Rauland Corporation

Chicago 41, Ill.

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JETEC COMPARATIVE CONDITIONS

Final Anode Voltage	12,000 Volts D-C
Grid No.4 Voltage Range ³	-48 to /260 Volts D-C
Grid No.4 Current	-15 to /25 uamp D-C
Grid No.2 Voltage	300 Volts D-C
Grid No.1 Voltage ⁵	-28 to -72 Volts D-C

RECOMMENDED OPERATING CONDITIONS

Final Anode Voltage	14,000 Volts D-C
Grid No.4 Voltage Range ³	-55 to /300 Volts D-C
Grid No.4 Current	-15 to /25 uamp D-C
Grid No.2 Voltage	300 Volts D-C
Grid No.1 Voltage ⁵	-28 to -72 Volts D-C

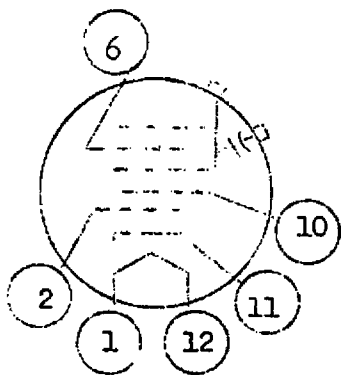
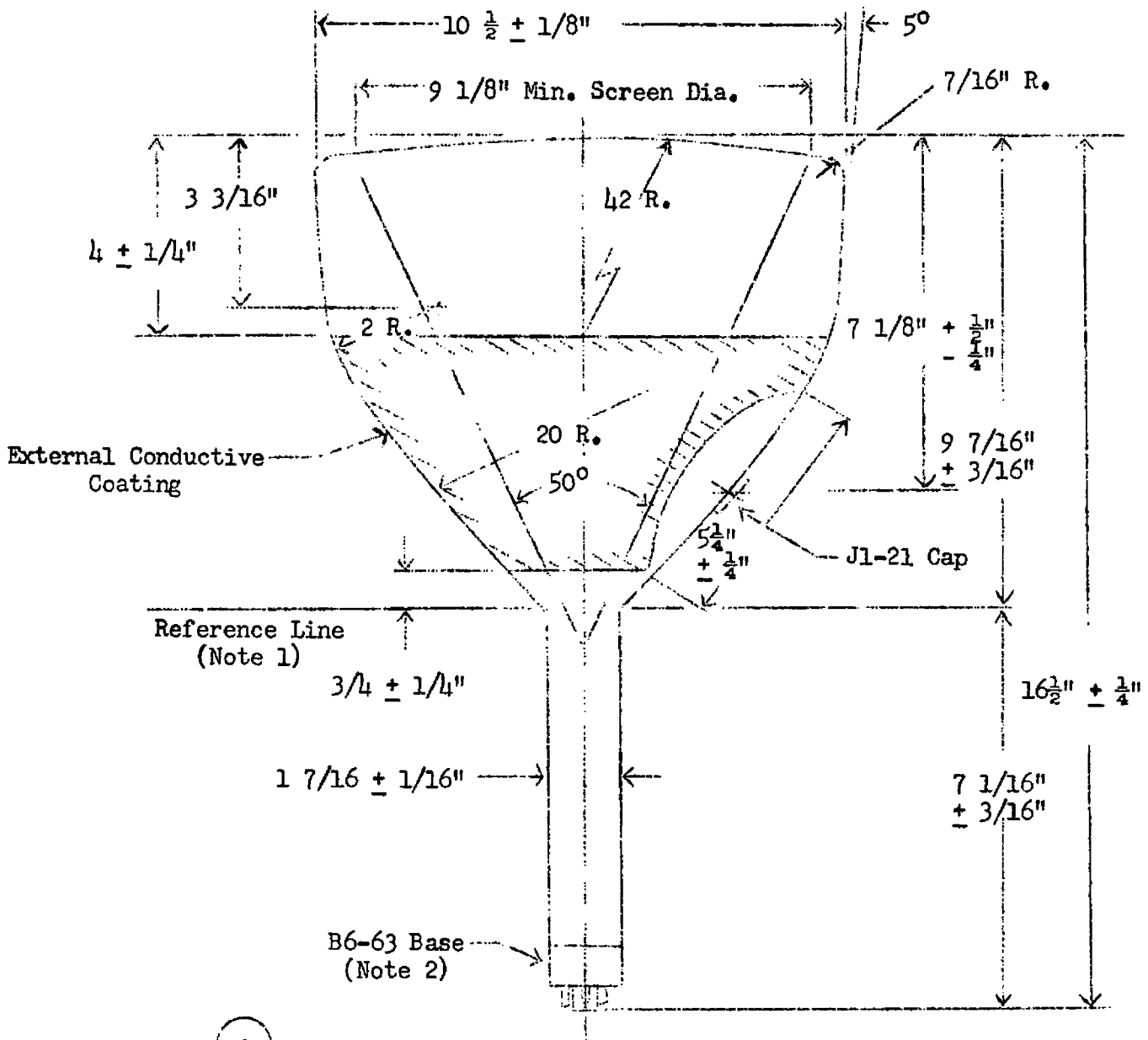
MAXIMUM CIRCUIT VALUES

Grid No.1 Circuit Resistance	1.5 Max.Megohms
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NOTES

1. Suitable for both black and white and CBS color television
2. Grid No.3, Grid No.5 and the Collector are connected internally and are referred to herein as "Final Anode."
3. Measured at 100 ua final anode current and equal vertical and horizontal resolution.
4. The focus electrode may be modulated to improve overall focus.
5. Visual extinction of the focused raster.

1ORPL4



B A S I N G

- 1 Heater
- 2 Grid No. 1
- 6 Grid No. 4
- 10 Grid No. 2
- 11 Cathode
- 12 Heater

Cap Grid No. 3 & Grid No. 5

NOTES:

1. Reference line is point where R.T.M.A. Gauge #112 will rest on bulb.
2. Vacant pin position #3 to be aligned with anode cap $\pm 30^\circ$.

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