

CHARACTERISTICS

GENERAL DATA

Focusing Method	Electrostatic
Deflection Method	Magnetic
Deflection Angles (approx.)	
Horizontal	85 Degrees
Diagonal	90 Degrees
Phosphor	Aluminized P4
Fluorescence	White
Persistence	Short to Medium
Faceplate	Gray Filter Glass
Light Transmittance (approx.)	74 Percent

ELECTRICAL DATA

Heater Voltage	6.3 Volts	
Heater Current	$0.6 \pm 5\%$ Ampere	
Heater Warm-up Time ¹	11 Seconds	
Direct Interelectrode Capacitances (approx.)		
Cathode to All Other Electrodes	5 μf	
Grid No. 1 to All Other Electrodes	6 μf	
External Conductive Coating to Anode ²	2500 μf Max. 2000 μf Min.	

MECHANICAL DATA

Minimum Useful Screen Dimensions (Maximum Assured)	
Height	167 $\frac{7}{8}$
Width	217 $\frac{5}{16}$
Diagonal	221 $\frac{13}{16}$
Minimum Useful Screen Area	332 Sq. Inches
Bulb	J192A or J192B
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base (Small Shell Duodecal 6-Pin)	B6-63
Basing	12L

RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)³

Anode Voltage	22000 Volts	dc
Grid No. 4 Voltage		
(Focusing Electrode)	-550 to +1100 Volts	dc
Grid No. 2 Voltage	70 Volts	dc
Cathode Voltage		
Positive Bias Value	150 Volts	dc
Negative Peak Value	0 Volts	
Peak 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	

TYPICAL OPERATING CONDITIONS (Cathode Drive Service)³

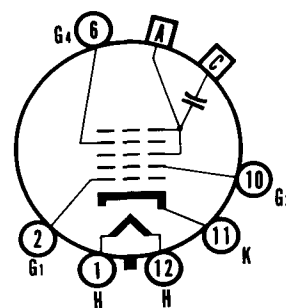
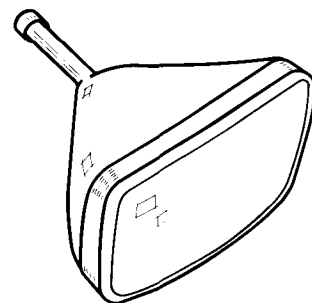
Anode Voltage	18,000 Volts	dc
Grid No. 4 Voltage for Focus	0 to 350 Volts	dc
Grid No. 2 Voltage	50 Volts	dc
Cathode Voltage for Cutoff ⁴	35 to 50 Volts	dc

CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5 Megohms Max.
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QUICK REFERENCE DATA

Television Picture Tube
24" Direct Viewed
Rectangular Glass Type
Spherical Faceplate
Gray Filter Glass
Aluminized Screen
Electrostatic Focus
90° Magnetic Deflection
Cathode Drive Design
Low Grid No. 2 Voltage
No Ion Trap
Short Neck Tube
External Conductive Coating



12-L

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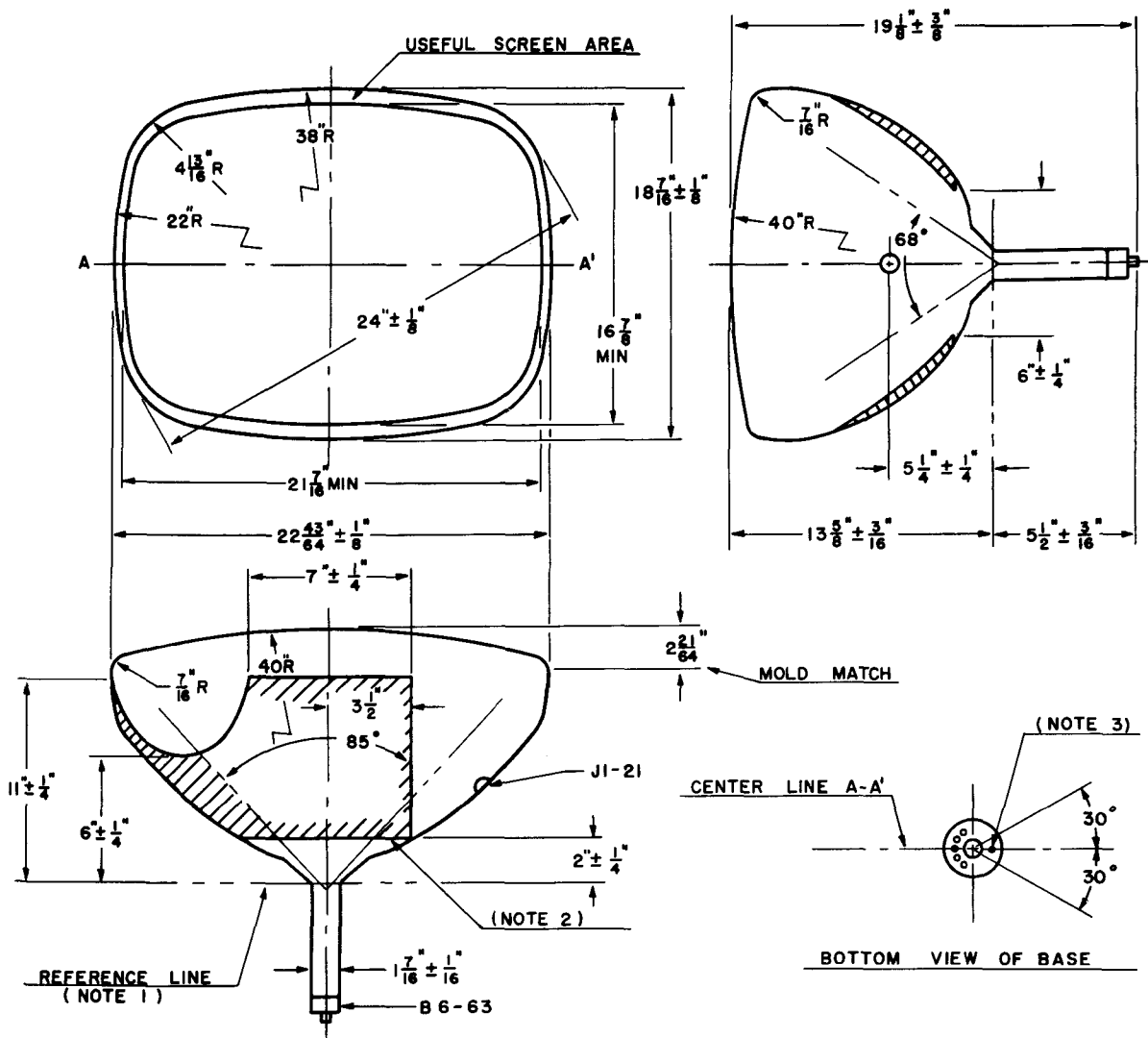
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NOTES:

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 four times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times rated heater voltage divided by rated heater current.*
2. *External conductive coating must be grounded.*
3. *This type is designed for cathode-drive service. Voltages shown are positive with respect to Grid No. 1 Voltage unless otherwise indicated.*
4. *For visual extinction of the undeflected focused spot.*

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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DIAGRAM NOTES:

1. Reference line is determined by the plane C-C' of the reference line gauge (JETEC No. 116) when the gauge is seated on the glass cone.
2. External conductive coating. Coating extends to near mold match line as dimensioned, on both long sides of bulb and on the short side opposite the anode contact.
3. Pin No. 6 aligns with horizontal centerline of tube, within 30° , and is on same side as anode contact.

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