

CHARACTERISTICS

GENERAL DATA

Focusing Method	Magnetic
Deflecting Method	Magnetic
Deflection Angle (approx.)	
Horizontal	85 Degrees
Diagonal	90 Degrees
Phosphor	P4
Fluorescence	White
Persistence	Medium
Faceplate	Gray Filter Glass
Light Transmittance (approx.)	68 Percent

ELECTRICAL DATA

Heater Voltage	6.3 Volts
Heater Current (approx.)	0.6 Ampere
Direct Interelectrode Capacitances (approx.)	
Cathode to All Other Electrodes	5 $\mu\mu\text{f}$
Grid No. 1 to All Other Electrodes	6 $\mu\mu\text{f}$
External Conductive Coating to Anode ¹	750 $\mu\mu\text{f}$ Max. 500 $\mu\mu\text{f}$ Min.
Ion Trap Magnet	External, Single Field Type

MECHANICAL DATA

Minimum Useful Screen Dimensions	24 $\frac{1}{4}$ x 18 $\frac{1}{2}$ Inches
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base (Small Shell Duodecal 5-Pin)	B5-57
Basing	12N

RATINGS

MAXIMUM RATINGS (Design Center Values)

Anode Voltage	18,000 Volts dc
Grid No. 2 Voltage	500 Volts dc
Grid No. 1 Voltage	
Negative Bias Value	125 Volts dc
Positive Bias Value	0 Volts dc
Positive Peak Value	2 Volts
Peak Heater-Cathode Voltage	
Heater Negative with Respect to Cathode	
During Warm-up Period Not to Exceed 15 Seconds	410 Volts
After Equipment Warm-up Period	180 Volts
Heater Positive with Respect to Cathode	180 Volts

RECOMMENDED OPERATING CONDITIONS

Anode Voltage ²	16,000 Volts dc
Grid No. 2 Voltage	300 Volts dc
Grid No. 1 Voltage ³ Required for Cutoff	-28 to -72 Volts dc
Focusing Coil Current ⁴	95 \pm 20% Ma dc
Ion Trap Magnet Strength (approx.)	35 Gauss

CIRCUIT VALUES

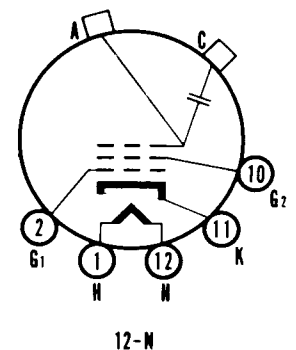
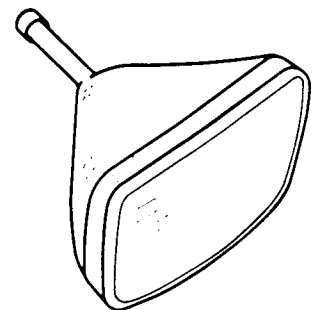
Grid No. 1 Circuit Resistance	1.5 Megohms Max.
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NOTES:

1. Conductive Coating must be grounded.
2. Brilliance and definition decrease with decreasing anode voltage. In general, the anode voltage should not be less than this value.
3. Visual extinction of focused raster. Extinction of the stationary focused spot will require that these values be about 5 volts more negative.
4. For JETEC focusing coil No. 109 or equivalent 3 inches from reference line with the combined grid No. 1 bias voltage and video signal adjusted to produce a highlight brightness of 20 foot lamberts on a picture area of 24 $\frac{1}{4}$ x 18 $\frac{1}{2}$ inches.

QUICK REFERENCE DATA

- Television Picture Tube
- 27" Direct Viewed
- Rectangular Glass Type
- Spherical Faceplate
- Gray Filter Glass
- Magnetic Deflection
- Magnetic Focus
- Single Field Ion Trap
- External Conductive Coating



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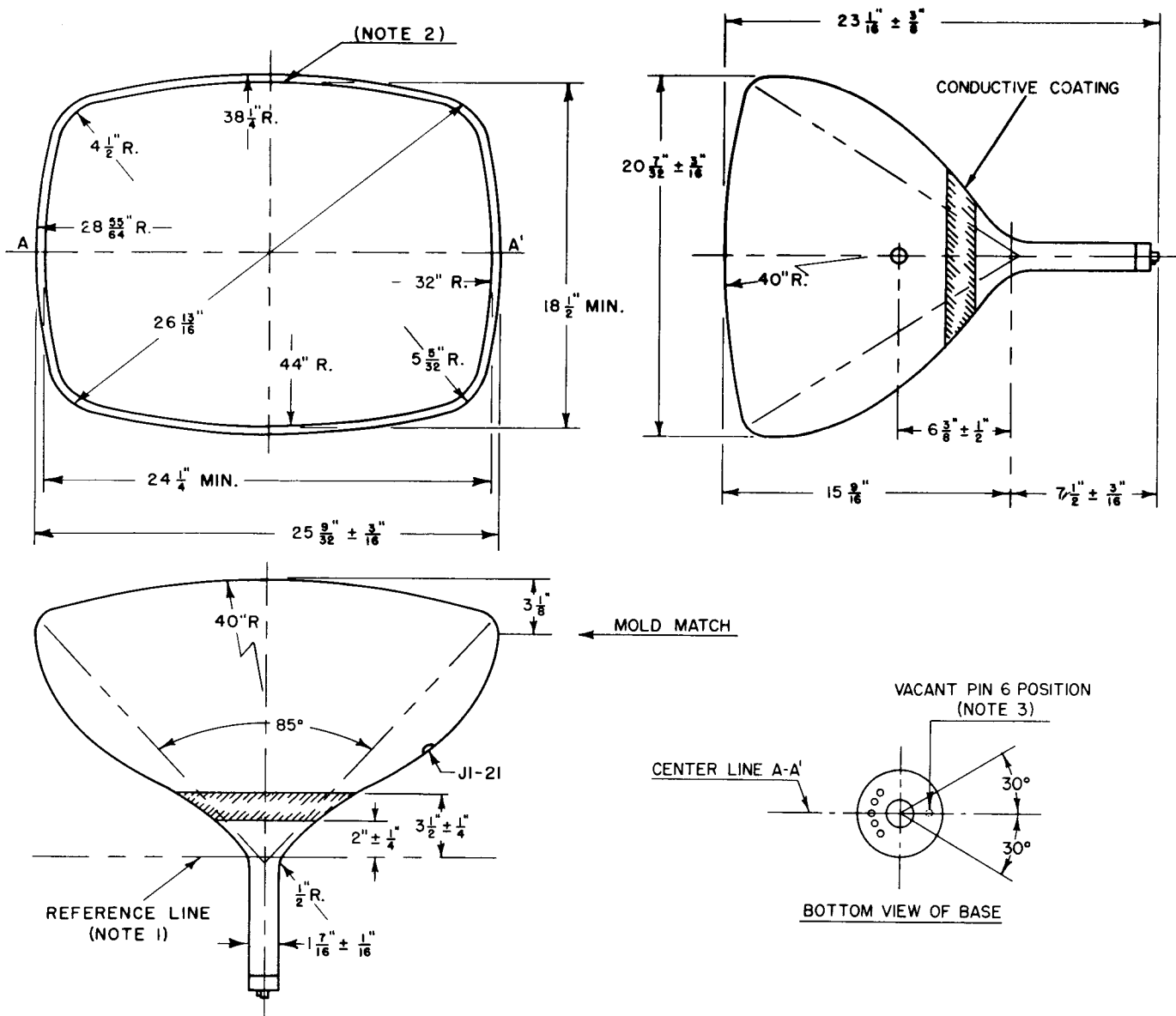


DIAGRAM NOTES

1. Reference line is determined by the plane C-C1 of the reference line gauge (JETEC No.116) when the gauge is resting on the cone. The neck diameter near the cone may exceed 1.500" but is limited by the internal contour of the yoke reference line gauge.
2. Suggested mask opening.
3. Bulb contact aligns with vacant pin position No. 6 ± 30 degrees.

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.