

## CHARACTERISTICS

### GENERAL DATA

|                                         |                   |
|-----------------------------------------|-------------------|
| Focusing Method . . . . .               | Magnetic          |
| Deflection Method . . . . .             | Magnetic          |
| Deflection Angles (approx.)             |                   |
| Vertical . . . . .                      | 68 Degrees        |
| Horizontal . . . . .                    | 85 Degrees        |
| Diagonal . . . . .                      | 90 Degrees        |
| Phosphor . . . . .                      | Aluminized P4     |
| Fluorescence . . . . .                  | White             |
| Persistence . . . . .                   | Short to Medium   |
| Faceplate . . . . .                     | Gray Filter Glass |
| Light Transmittance (approx.) . . . . . | 80 Percent        |

### 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 μμf                       |
| Grid No. 1 to All Other Electrodes . . . . . | 6 μμf                       |
| Ion Trap Magnet . . . . .                    | External, Single Field Type |

### MECHANICAL DATA

|                                                    |                        |
|----------------------------------------------------|------------------------|
| Minimum Useful Screen Dimensions . . . . .         | .7-3/16 x 5-3/8 Inches |
| Bulb Contact (Recessed Small Cavity Cap) . . . . . | J1-21                  |
| Base (Small Shell Duodecal 5-Pin) . . . . .        | B5-57                  |
| Basing . . . . .                                   | 12D                    |
| Weight (approx.) . . . . .                         | 2 1/4 Pounds           |

## RATINGS

### MAXIMUM RATINGS (Absolute-Maximum Values)

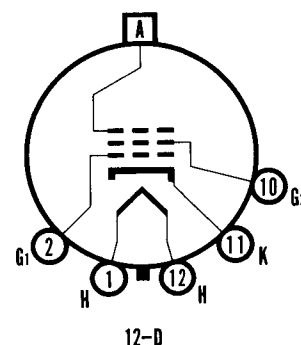
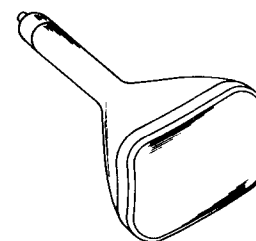
|                                                   |              |    |
|---------------------------------------------------|--------------|----|
| Anode Voltage . . . . .                           | 19,800 Volts | dc |
| Grid No. 2 Voltage . . . . .                      | 550 Volts    | dc |
| Grid No. 1 Voltage                                |              |    |
| Negative Bias Value . . . . .                     | 155 Volts    | dc |
| Negative Peak Value . . . . .                     | 220 Volts    |    |
| 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    | 450 Volts    |    |
| After Equipment Warm-up period . . . . .          | 200 Volts    |    |
| Heater Positive with Respect to Cathode . . . . . | 200 Volts    |    |

### TYPICAL OPERATING CONDITIONS

|                                                               |                  |    |
|---------------------------------------------------------------|------------------|----|
| Anode Voltage . . . . .                                       | 16,000 Volts     | dc |
| Grid No. 2 (and Grid No. 4) Voltage . . . . .                 | 300 Volts        | dc |
| Grid No. 1 Voltage Required for Cutoff <sup>2</sup> . . . . . | -35 to -72 Volts | dc |
| Focusing Coil Current <sup>3</sup> . . . . .                  | 125 ± 15% Ma     | dc |
| Ion Trap Magnet Current (Average) <sup>4</sup> . . . . .      | 30 Ma            | dc |
| Field Strength of PM Ion Trap Magnet <sup>5</sup> . . . . .   | 33 Gaussess Min. |    |

## QUICK REFERENCE DATA

Monitor Tube  
8" Rectangular, All Glass  
Magnetic Focusing  
Ion Trap  
90° Magnetic Deflection  
Gray Filter Glass  
Aluminized Screen



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**CIRCUIT VALUES**

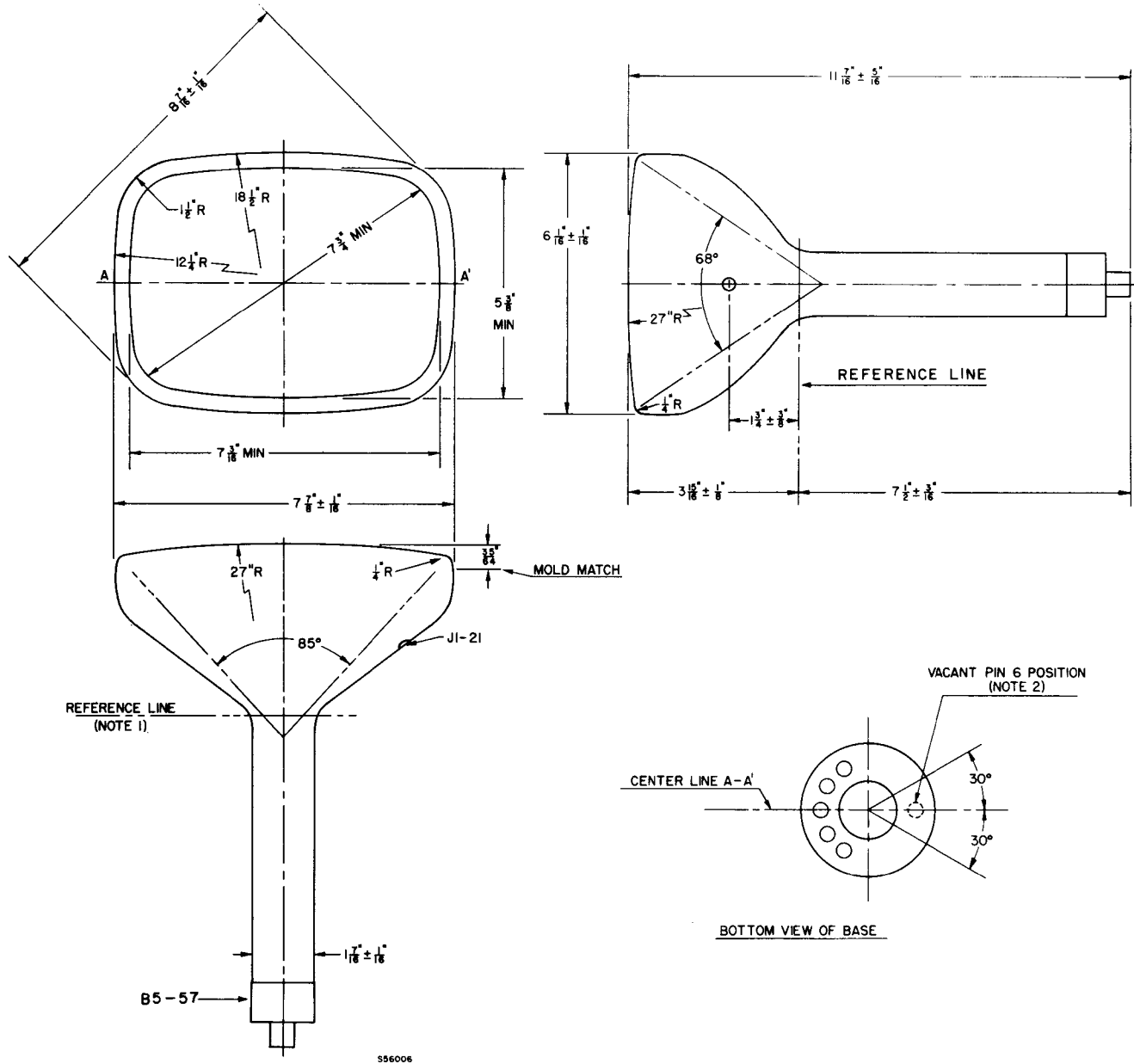
Grid No. 1 Circuit Resistance . . . . . 1.5 Megohms Max.

**NOTES:**

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times the rated heater voltage divided by the rated heater current.
2. Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be about 5 volts more negative.
3. For JETEC Focusing Coil No. 109 or equivalent, located with center of air gap 3" from reference line, bias adjusted for 20 ft. L on a 7-3/16" x 5-3/8" picture area, sharply focused at center of screen.
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.

**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.*



### DIAGRAM NOTES:

- Reference line is determined by the plan C-C' of the reference line gauge (JETEC No. 116) when the gauge is seated against the glass cone.
- Anode contact aligns with vacant pin position No. 6  $\pm 30$  degrees.

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