

## CHARACTERISTICS

### GENERAL DATA

|                                      |                          |
|--------------------------------------|--------------------------|
| Focusing Method . . . . .            | Magnetic                 |
| Deflection Method . . . . .          | Magnetic                 |
| Deflection Angle (Approx.) . . . . . | 50 Degrees               |
| Types*                               | <b>7MP7</b> <b>7MP14</b> |
| Fluorescence . . . . .               | Blue      Purple         |
| Phosphorescence . . . . .            | Yellow      Orange       |
| Persistence . . . . .                | Long      Medium-Long    |
| Faceplate                            | Clear                    |

\*In addition to the types shown, the 7MP- can be supplied with several other screen phosphors.

### ELECTRICAL DATA

|                                              |                       |
|----------------------------------------------|-----------------------|
| Heater Voltage . . . . .                     | 6.3 Volts             |
| Heater Current . . . . .                     | $0.6 \pm 10\%$ Ampere |
| Direct Interelectrode Capacitances (Approx.) |                       |
| Cathode to All Other Electrodes . . . . .    | 5 $\mu\text{f}$       |
| Grid No. 1 to All Other Electrodes . . . . . | 6 $\mu\text{f}$       |

### MECHANICAL DATA

|                                                    |                                            |
|----------------------------------------------------|--------------------------------------------|
| Minimum Useful Screen Diameter . . . . .           | 6 Inches                                   |
| Bulb . . . . .                                     | J57 $\frac{1}{2}$ C or J57 $\frac{1}{2}$ D |
| Bulb Contact (Recessed Small Cavity Cap) . . . . . | J1-21                                      |
| Base (Small Shell Duodecal 5-Pin) . . . . .        | B5-57                                      |
| Basing . . . . .                                   | 12D                                        |
| Weight (Approx.) . . . . .                         | 3 $\frac{1}{2}$ Pounds                     |

## RATINGS

### MAXIMUM RATINGS (Absolute Maximum Values)

|                                                   |             |    |
|---------------------------------------------------|-------------|----|
| Anode Voltage . . . . .                           | 8,800 Volts | dc |
| Grid No. 2 Voltage . . . . .                      | 770 Volts   | dc |
| Grid No. 1 Voltage                                |             |    |
| Negative Bias Value . . . . .                     | 200 Volts   | dc |
| Positive Bias Value <sup>1</sup> . . . . .        | 0 Volts     | dc |
| Positive Peak Value . . . . .                     | 2 Volts     |    |
| Peak Heater-Cathode Voltage                       |             |    |
| Heater Negative with Respect to Cathode . . . . . | 140 Volts   |    |
| Heater Positive with Respect to Cathode . . . . . | 140 Volts   |    |

### TYPICAL OPERATING CONDITIONS

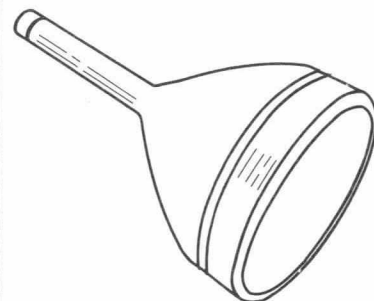
|                                                      |               |                  |    |
|------------------------------------------------------|---------------|------------------|----|
| Anode Voltage <sup>2</sup> . . . . .                 | 4000          | 7000 Volts       | dc |
| Grid No. 2 Voltage . . . . .                         | 250           | 250 Volts        | dc |
| Grid No. 1 Voltage for Cutoff <sup>3</sup> . . . . . | -27 to -63    | -27 to -63 Volts | dc |
| Focusing Coil Current <sup>4</sup> . . . . .         | .64 $\pm$ 15% | 85 $\pm$ 15% Ma  |    |
| Spot Position . . . . .                              |               | See Note 5       |    |

### CIRCUIT VALUES

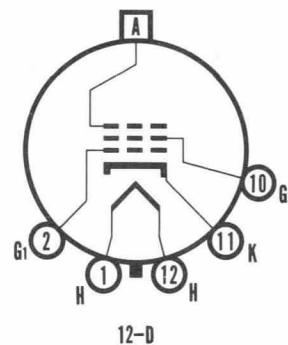
|                                         |                  |
|-----------------------------------------|------------------|
| Grid No. 1 Circuit Resistance . . . . . | 1.5 Megohms Max. |
|-----------------------------------------|------------------|

## QUICK REFERENCE DATA

Radar Indicator  
7" Direct Viewed  
Round Glass Type  
Magnetic Focus  
Magnetic Deflection



153003



## SYLVANIA ELECTRONIC TUBES

A Division of  
SYLVANIA ELECTRIC PRODUCTS, Inc.

PICTURE TUBE  
OPERATIONS  
SENECA FALLS, NEW YORK

Prepared and Released By The  
TECHNICAL PUBLICATIONS SECTION  
EMPORIUM, PENNSYLVANIA

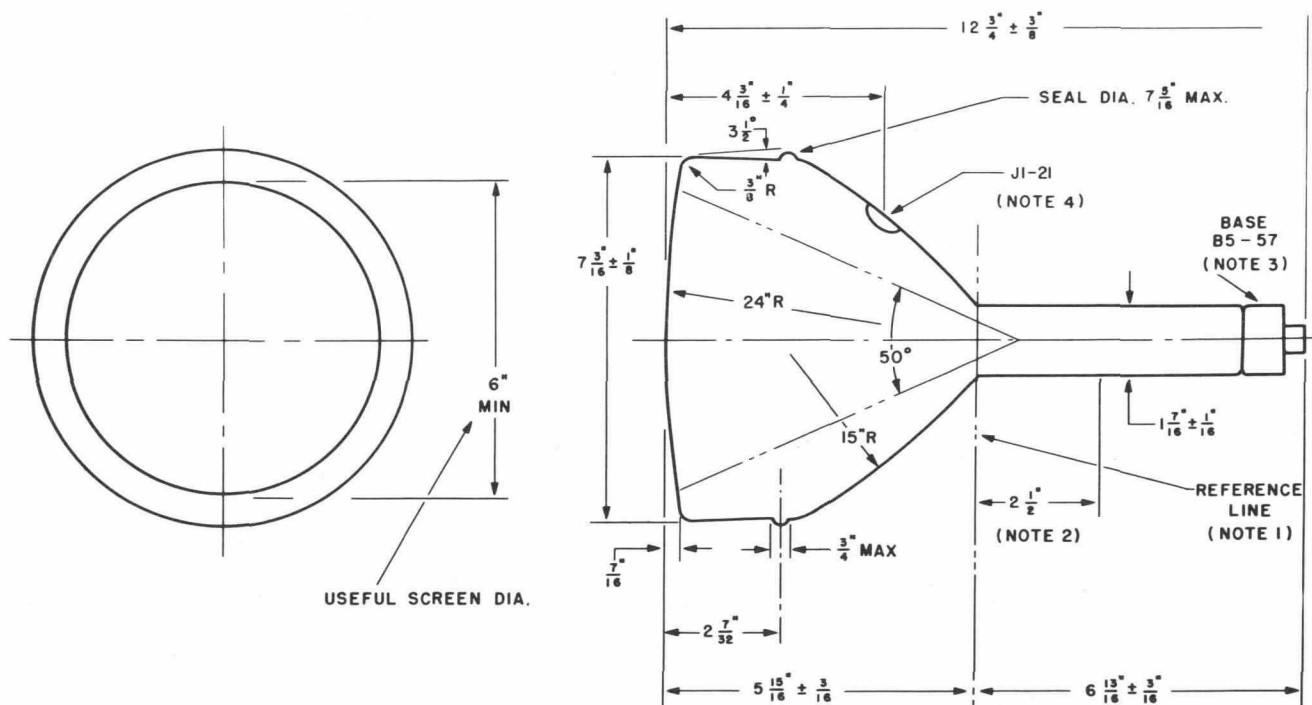
DECEMBER 1958

## NOTES:

1. At or near this rating, the effective resistance of the anode supply should be adequate to limit the anode input power to 6 watts.
2. Brilliance and definition decrease with decreasing anode voltage. In general, anode voltage should not be less than 4,000 volts.
3. Visual extinction of undeflected focused spot.
4. For JETEC Focusing Coil No. 109 positioned with air gap toward faceplate and center line of air gap  $2\frac{3}{4}$  inches from reference line (See Outline Drawing) and anode current of 200 microamperes.
5. The center of the undeflected unfocused spot will fall within a circle having a 12 mm radius concentric with the center of the tube face.

## WARNING:

X-ray radiation shielding may be necessary to protect against 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 position where reference line gauge (JETEC No. 112) 1.500 inches  $\begin{matrix} + .003 \\ - .000 \end{matrix}$  inches I.D. and 2 inches long will seat on bulb cone.
2. Location of deflection yoke must be within this space.
3. Socket for this base should not be rigidly mounted: It should have flexible leads and be allowed to move freely. Bottom circumference of base shell will fall within circle concentric with bulb axis and having diameter of  $1\frac{7}{8}$  inches.
4. The plane through the tube axis and vacant pin position No. 3 may vary from the plane through the tube axis and bulb terminal by an angular tolerance (measured about the tube axis) of  $\pm 10$  Degrees. Bulb terminal is on the same side as vacant pin position No. 3.