DESCRIPTION
24" Direct View  90° Magnetic Deflection
Rectangular Glass Envelope Electrostatic Focus
Spherical Faceplate External Conductive Coating
Gray Filter Glass No Ion Trap
Aluminized Screen Bonded Implosion Panel
6.3 Volt, 600 Ma. Heater

ELECTRICAL DATA
Focusing Method
Deflection Angles, Approximate
  Horizontal  85 Degrees
  Vertical  68 Degrees
  Diagonal  90 Degrees

Direct Interelectrode Capacitances
  Cathode to all other electrodes, approximate
  6 uuf
  Grid #1 to all other electrodes, approximate
  2,500 min. uuf
  External Conductive Coating to Anode
  2,000 max. uuf
  600 ± 10% Ma.
  11 Seconds

Heater Current at 6.3 volts
Heater Warm-up Time

OPTICAL DATA
Phosphor Number
P4 Aluminized

Light Transmittance at Center, Approximate
45 Percent

MECHANICAL DATA
Overall Length
19 3/8 ± 7/16 Inches

Greatest Dimensions of Tube
Diagonal 24 ± 1/8 Inches
  24 11/16 ± 1/8 Inches
  22 11/16 ± 1/8 Inches

Width 18 7/16 ± 1/8 Inches

Height

Minimum Useful Screen Dimensions (Projected)
Diagonal 22 11/16 Inches
  21 7/16 Inches
  16 7/8 Inches

Horizontal Axis 332 Sq. Inches

Vertical Axis

Area

Neck Length 5 1/2 ± 3/16 Inches

Bulb J192A2
Implosion Panel PPG SK3123 or equivalent
Bulb Contact J1-21
Base B6-203
Basing 12L

Bulb Contact Alignment
Anode contact aligns with pin position #6

± 30 Degrees

Aug. 1963
RATINGS (Design Maximum System)

Unless otherwise specified, voltages are positive and measured with respect to cathode

<table>
<thead>
<tr>
<th>Voltage Description</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Anode Voltage</td>
<td>22,000</td>
<td>Volts</td>
</tr>
<tr>
<td>Minimum Anode Voltage</td>
<td>16,000</td>
<td>Volts</td>
</tr>
<tr>
<td>Maximum Grid #4 (Focusing Electrode) Voltage</td>
<td>1100 - 500</td>
<td>Volts</td>
</tr>
<tr>
<td>Maximum Grid #2 Voltage</td>
<td>550</td>
<td>Volts</td>
</tr>
<tr>
<td>Minimum Grid #2 Voltage</td>
<td>200</td>
<td>Volts</td>
</tr>
<tr>
<td>Grid #1 Voltage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Negative Value</td>
<td>220</td>
<td>Volts DC</td>
</tr>
<tr>
<td>Maximum Negative Peak Value</td>
<td>155</td>
<td>Volts</td>
</tr>
<tr>
<td>Maximum Positive Value</td>
<td>0</td>
<td>Volts DC</td>
</tr>
<tr>
<td>Maximum Positive Peak Value</td>
<td>2</td>
<td>Volts</td>
</tr>
<tr>
<td>Maximum Heater Voltage</td>
<td>7</td>
<td>Volts</td>
</tr>
<tr>
<td>Minimum Heater Voltage</td>
<td>5.8</td>
<td>Volts</td>
</tr>
<tr>
<td>Maximum Heater-Cathode Voltage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heating negatives with respect to cathode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>During warm-up period not to exceed 15 seconds</td>
<td>450</td>
<td>Volts</td>
</tr>
<tr>
<td>After equipment warm-up period</td>
<td>200</td>
<td>Volts</td>
</tr>
<tr>
<td>Heater positive with respect to cathode</td>
<td>200</td>
<td>Volts</td>
</tr>
</tbody>
</table>

TYPICAL OPERATING CONDITIONS

GRID DRIVE SERVICE

Unless otherwise specified, all voltage values are positive with respect to cathode

<table>
<thead>
<tr>
<th>Voltage Description</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anode Voltage</td>
<td>18,000</td>
<td>Volts</td>
</tr>
<tr>
<td>Grid #4 Voltage (Focusing Electrode)</td>
<td>250</td>
<td>Volts</td>
</tr>
<tr>
<td>Grid #2 Voltage</td>
<td>400</td>
<td>Volts</td>
</tr>
<tr>
<td>Grid #1 Voltage</td>
<td>-36 to -94</td>
<td>Volts</td>
</tr>
</tbody>
</table>

MAXIMUM CIRCUIT VALUES

Maximum Grid #1 Circuit Resistance                         | 1.5     | Megohms|

NOTES

1. Visual extinction of focused raster.

2. With the combined grid #1 bias voltage and video-signal voltage adjusted to give an anode current of 100 microamperes on a 21 7/16 x 16 7/8 pattern from 2F21 Monoscope or equivalent.

3. Individual tubes will have satisfactory focus at some value between 0 and 400 volts.
NOTES

1. REFERENCE LINE DETERMINED BY PLANE C – C OF JEDEC REFERENCE LINE GAUGE NO.116

2. BASE PIN NO.6 ALIGNS WITH ANODE CONTACT WITHIN 30°