DESCRIPTION
19" Direct View
Rectangular Glass Envelope
Spherical Faceplate
Gray Filter Glass
Aluminized Screen
6.3 Volt, 600 Ma Heater
Low G, Voltage (35V)
Cathode Drive Design
92° Magnetic Deflection
Electrostatic Focus
External Conductive Coating
No Ion Trap

ELECTRICAL DATA
Focusing Method
Deflection Angles, Approximate
Horizontal 80 Degrees
Vertical 65 Degrees
Diagonal 92 Degrees
Direct Interelectrode Capacitance
Cathode to all other electrodes, approximate 5 uuf
Grid #1 to all other electrodes, approximate 6 uuf
External Conductive Coating to Anode 2,000 max. uuf
1,500 min. uuf
Heater Current at 6.3 volts 600 ± 10% Ma
Heater Warm-up time 11 Seconds

OPTICAL DATA
Phosphor Number P4 Aluminized
Light Transmittance at Center, Approximate 78 Percent

MECHANICAL DATA
Overall Length 15 1/4 ± 3/8 Inches
Greatest dimensions of tube
Diagonal 18 5/8 ± 1/8 Inches
Width 16 13/32 ± 1/8 Inches
Height 13 11/32 ± 1/8 Inches

Minimum Useful Screen Dimensions (Projected)
Diagonal 17 9/16 Inches
Horizontal Axis 15 1/8 Inches
Vertical Axis 12 Inches
Area 172 Sq. Inches
Neck Length 5 1/2 ± 3/16 Inches
Bulb J149B1 or equivalent
Bulb Contact J1 - 21
Base B6 - 203
Basing 12L
Bulb Contact Alignment
Anode Contact aligns with pin position #6 ± 30 Degrees

FEB., 1962
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RATINGS (Design Maximum System)
    Unless otherwise specified, voltages are
    positive and measured with respect to Grid #1

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Anode Voltage</td>
<td>19,800 Volts</td>
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<tr>
<td>Minimum Anode Voltage</td>
<td>12,000 Volts</td>
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<tr>
<td>Maximum Grid #4 Voltage</td>
<td>±1100 - 500 Volts</td>
</tr>
<tr>
<td>Maximum Grid #2 Voltage</td>
<td>40 Volts</td>
</tr>
<tr>
<td>Minimum Grid #2 Voltage</td>
<td>25 Volts</td>
</tr>
<tr>
<td>Cathode Voltage</td>
<td>100 Volts</td>
</tr>
<tr>
<td>Maximum Heater Voltage</td>
<td>7 Volts</td>
</tr>
<tr>
<td>Minimum Heater Voltage</td>
<td>5.8 Volts</td>
</tr>
<tr>
<td>Maximum Heater-Cathode Voltage</td>
<td></td>
</tr>
<tr>
<td>Heater negatives with respect to cathode</td>
<td>-410 Volts</td>
</tr>
<tr>
<td>During warm-up period not to exceed 15 seconds</td>
<td></td>
</tr>
<tr>
<td>After equipment warm-up period</td>
<td>-180 Volts</td>
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<tr>
<td>Heater positive with respect to cathode</td>
<td>180 Volts</td>
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</tbody>
</table>

TYPICAL OPERATING CONDITIONS

CATHODE DRIVE SERVICE
    Unless otherwise specified, all voltage values
    are positive with respect to Grid #1

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Anode Voltage</td>
<td>2,3</td>
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<tr>
<td>Grid #4 Voltage (Focusing Electrode)</td>
<td>14,500 Volts</td>
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<tr>
<td>Grid #2 Voltage</td>
<td>250 Volts</td>
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<tr>
<td>Cathode Voltage</td>
<td>35 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 150 microamperes on a 15 1/8 x 12 pattern from
2F21 Monoscope or equivalent.

3. Individual tubes will have satisfactory focus at some value between 0 and 500 Volts.
NOTE: 1. REFERENCE LINE AS DETERMINED BY PLANE C-C OF JEDEC REFERENCE LINE GAUGE 116

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