DESCRIPTION
23" Direct View Low G2 Voltage (50 V.)
Rectangular Glass Envelope Cathode Drive Design
Spherical Faceplate 90° Magnetic Deflection
Gray Filter Glass Electrostatic Focus
Aluminized Screen External Conductive Coating
6.3 Volt, 600 Ma. Heater No Ion Trap
Bonded Implosion Panel

ELECTRICAL DATA
Focusing Method
Deflection Angles, Approximate
Horizontal
Vertical
Diagonal

Direct Interelectrode Capacitances
Cathode to all other electrodes, approximate
Grid #1 to all other electrodes, approximate
External Conductive Coating to Anode

Heater Current at 6.3 volts
Heater Warm-up time

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

MECHANICAL DATA
Overall Length
Greatest Diameter of Tube (Implosion Panel)
Diagonal
Width
Height

Minimum Useful Screen Dimensions (Projected)
Diagonal
Horizontal Axis
Vertical Axis
Area

Neck Length
Bulb
Implosion Panel
Bulb Contact
Base
Basing
Bulb Contact Alignment

Anode contact aligns with pin position #6

Electrostatic

76 Degrees
62 Degrees
90 Degrees
5 uuf
6 uuf
2500 max. uuf
2000 min. uuf
600 ± 10% ma
11 Seconds

19 15/32 ± 7/16 Inches
24 45/64 ± 3/32-1/16 Inches
21 5/16 ± 1/8 Inches
17 13/32 ± 3/32-1/8 Inches
22 5/16 Inches
19 5/16 Inches
15 1/4 Inches
282 Sq. Inches
5 5/8 ± 3/16 Inches
C - 187 EXP #2 or equivalent
FP198A1 or equivalent
J1-21
B6-63
12L

30 Degrees

August, 1961
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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 Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Anode Voltage</td>
<td>22,000 Volts</td>
</tr>
<tr>
<td>Minimum Anode Voltage</td>
<td>15,000 Volts</td>
</tr>
<tr>
<td>Maximum Grid #4 (Focusing Electrode) Voltage</td>
<td>1100 - 500 Volts</td>
</tr>
<tr>
<td>Maximum Grid #2 Voltage</td>
<td>70 Volts</td>
</tr>
<tr>
<td>Minimum Grid #2 Voltage</td>
<td>40 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></td>
</tr>
<tr>
<td>During warm-up period not to exceed 15 seconds</td>
<td>-410 Volts</td>
</tr>
<tr>
<td>After equipment warm-up period</td>
<td>-180 Volts</td>
</tr>
<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 Description</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Anode Voltage</td>
<td>18,000 Volts</td>
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<tr>
<td>Grid #4 Voltage (Focusing Electrode)</td>
<td>250 Volts</td>
</tr>
<tr>
<td>Grid #2 Voltage</td>
<td>50 Volts</td>
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<tr>
<td>Cathode Voltage*</td>
<td>35 to 50 Volts</td>
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</table>

MAXIMUM CIRCUIT VALUES

<table>
<thead>
<tr>
<th>Voltage Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Grid #1 Circuit Resistance</td>
<td>1.5 Megohms</td>
</tr>
</tbody>
</table>

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 19 5/16 x 15 1/4 pattern from RCA 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 J.E.D.E.C.
   REFERENCE LINE GAUGE 116
2. BASE PIN NO. 6 ALIGNS WITH ANODE CONTACT WITHIN 30°

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