DESCRIPTION

19" Direct View  Filled Rim Implosion Protection
Rectangular Glass Envelope  11/4 Magnetic Deflection
Gray Filter Glass  Electrostatic Focus
Aluminized Screen  External Conductive Coating
6.3 Volts, 450 Ma. Heater  No Ion Trap
Cathode Drive Design  Low G2 Voltage (45V)
Rim Provides Mounting Holes

SPECIAL CHARACTERISTICS—Anode Penetration Current 150µa Max.
(Note 4)

ELECTRICAL DATA
Focus Method
Deflection Angles (approx.)
  Horizontal  103 Degrees
  Vertical  86 Degrees
  Diagonal  114 Degrees
Direct Inter-electrode Capacitances
  Cathode to all other electrodes (approx) 5 uuf
  Grid #1 to all other electrodes (approx) 6 uuf
  (Including implosion protection hardware) 1,500 max. uuf
External Conductive Coating to Anode 1,000 min. uuf
Heater Current at 6.3 Volts  450 ± 5% Ma.
Heater Warm-up time  11 Seconds

OPTICAL DATA
  Phosphor Number  Pl4 Aluminized
  Light Transmittance at Center (approx.) 49%

MECHANICAL DATA
  Overall Length  11 5/8" ± 1/4"
  Greatest Dimensions of Tube (Metal Rim)
    Diagonal  20 13/16" ± 3/32"
    Width  17 5/32" ± 1/16"
    Height  14 3/32" ± 1/16"
  Minimum Useful Screen Dimensions (Projected)
    Diagonal  17 9/16"
    Horizontal Axis  15 1/8"
    Vertical Axis  12"
    Area  172 Sq. in.
  Neck Length  4 3/8" ± 1/8"
  Bulb  J149F1
  Bulb Contact  J1-21
  Base  B6-214
  Basing  7FA
  Bulb Contact Alignment  J1-21 contact aligns with pin position #7 ± 30 Degrees
RATINGS (Design Maximum System)

Unless otherwise specified, voltage values are positive and measured with respect to Grid #1

<table>
<thead>
<tr>
<th>Voltage Description</th>
<th>Voltage Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Anode Voltage</td>
<td>19,800 Volts</td>
</tr>
<tr>
<td>Minimum Anode Voltage</td>
<td>12,000 Volts</td>
</tr>
<tr>
<td>Maximum Grid #4 (Focusing Electrode) Voltage</td>
<td>+1100-500</td>
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<tr>
<td>Maximum Grid #2 Voltage</td>
<td>55 Volts</td>
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<tr>
<td>Minimum Grid #2 Voltage</td>
<td>30 Volts</td>
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<tr>
<td>Cathode Voltage</td>
<td>100 Volts</td>
</tr>
<tr>
<td>Maximum Heater Voltage</td>
<td>7 Volts</td>
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<tr>
<td>Minimum Heater Voltage</td>
<td>5.8 Volts</td>
</tr>
<tr>
<td>Maximum Heater-Cathode Voltage</td>
<td>410 Volts</td>
</tr>
</tbody>
</table>

Heater negative with respect to cathode
During warm-up time not to exceed 15 sec. 180 Volts
After equipment warm-up period 180 Volts
Heater positive with respect to cathode 180 Volts

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>
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</tr>
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<tbody>
<tr>
<td>Anode Voltage</td>
<td>16,000 Volts DC</td>
</tr>
<tr>
<td>Grid #4 (Focusing Electrode) voltage</td>
<td>250 Volts DC</td>
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<tr>
<td>(Notes 2 and 3)</td>
<td></td>
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<tr>
<td>Grid #2 Voltage</td>
<td>45 Volts DC</td>
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<tr>
<td>Cathode Voltage (Note 1)</td>
<td>35 to 50 Volts DC</td>
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</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 micro-amperes on a 15 1/8" X 12" pattern from RCA 2F21 Monoscope or equivalent.

3. Individual tubes will have satisfactory focus at some value between 0 and 500 volts.

4. This is the maximum beam current with 19,800 volts (design max.) applied to Anode, zero voltage applied to Cathode, Grid #1, and Grid #2, all other elements to have nominal voltages.
NOTE

1. Reference line as determined by plane C - C' of JEDAC Reference Line Gauge no. 126.

2. Base pin no. 7 aligns with anode contact within 30°.