19 INCH, RECTANGULAR, GLASS

FACE PLATE -- SPHERICAL GRAY

FOCUS -- ELECTROSTATIC

NON ION TRAP GUN

DEFLECTION -- MAGNETIC

ALUMINIZED SCREEN

114 DEGREE DEFLECTION ANGLE

EXTERNAL CONDUCTIVE COATING

The 19BHP4 is a 19 inch electrostatic-focus and magnetic deflection glass picture tube. Outstanding features include a short over-all length, a small neck diameter and a non ion trap gun. The fluorescent screen is aluminized to increase light output and reduce undesirable screen charging. An external conductive coating is provided to serve as a filter capacitor when grounded.

ELECTRICAL DATA

Focusing Method

Electrostatic

Deflection Angle. Approximate

Horizontal

102 degrees

Vertical

87 degrees

Diagonal

114 degrees

Direct Interelectrode Capacitance

Cathode to all other electrodes. approximate

5 uuf

Grid #1 to all other electrodes. approximate

6 uuf

1500 max. uuf

External Conductor Coating to Anode

1000 min. uuf

Heater Current at 6.3 volts

600 ± 10% ma.

Heater Warm Up Time

11 sec.

OPTICAL DATA

Phosphor Number

P4 Aluminized

Light Transmittance at Center Approx.

76 Percent
MECHANICAL DATA

Overall Length
Greatest Dimensions of Tube
  Diagonal
  Width
  Height
Minimum Useful Screen Dimensions (Projected)
  Diagonal
  Horizontal Axis
  Vertical Axis
  Area
Neck Length
Bulb
Bulb Contact
Base
Basing
Bulb Contact Alignment
  Anode Contact Aligns with Rev. No. 4 ± 30 degrees

RATINGS (Design Maximum System)

Unless otherwise specified, voltage values are positive and measured with respect to cathode.

Maximum Anode Voltage
Minimum Anode Voltage
Maximum Grid 4 (Focusing Electrode) Voltage
Minimum Grid 2 Voltage
Maximum Grid 2 Voltage
Grid 1 Voltage
  Maximum Negative Value
  Maximum Negative Peak Value
  Maximum Positive Value
  Maximum Positive Peak Value
Maximum Heater Voltage
Minimum Heater Voltage
Maximum Heater-Cathode Voltage
  Heater negative with respect to cathode
  During warm up period not to exceed 15 sec.
  After equipment warm-up period
  Heater positive with respect to cathode

Typical Operating Conditions

Anode Voltage
Grid #4 Voltage (Focusing Electrode (Notes 2 & 3)
Grid #2 Voltage
Grid #1 Voltage (Note 1)
MAXIMUM CIRCUIT VALUES

<table>
<thead>
<tr>
<th>Circuit Resistance</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Grid #1</td>
<td>1.5 max. megohm</td>
</tr>
<tr>
<td>Grid No. 2</td>
<td>0.1 min. megohm</td>
</tr>
<tr>
<td>Focusing Electrode</td>
<td>0.1 min. megohm</td>
</tr>
</tbody>
</table>

Protective resistance in Grid No. 2 and focusing electrical circuits is advisable to prevent damage to tube. If applicable, one resistor common to both circuits may be used.

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 11 15/16" pattern from RCA 2F21 monoscope or equivalent.

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

1. The reference line is determined by the intersection of the plane C-C of sage (EIA No. 126) with the glass funnel.

2. Deflection angle on the diagonal is 114°.

3. Anode terminal aligns with pin No. 4 ± 30 degrees.

4. Use a non-rigidly mounted socket with flexible leads. Bottom circumference of base wafer will fall within 1-3/4 inch diameter circle concentric with the bulb axis.

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