

19DVP4
CATHODE RAY TUBE

| | |
|-----------------------------|------------------------------|
| 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 |

-----DESCRIPTION AND RATING-----

The 19DVP4 is a 19-inch - 114° HW rectangular aluminized picture tube with the anode bulb contact J1-21 located on the long side of the bulb. It features a short neck, 6.3 V, 450 ma heater and 150 volt G-2 for cathode drive design.

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 |
| External Conductive Coating to Anode | 1500 max. uuf 1000 min. uuf |
| Heater Current at 6.3 volts | 450 ± 23 ma. |
| Heater Warm Up Time | 11 sec. |

OPTICAL DATA

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|---|---------------|
| Phosphor Number | P4 Aluminized |
| Light Transmittance at Center Approx. | 78 percent |



MECHANICAL DATA

| | | |
|--|----------------------------|------------------|
| Overall Length | .11 3/4 | \pm 1/4 inches |
| Greatest Dimensions of Tube | | |
| Diagonal | .18 5/8 | \pm 1/8 inches |
| Width | .16 13/32 | \pm 1/8 inches |
| Height | .13 11/32 | \pm 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 | .4 1/2 | \pm 1/8 inches |
| Bulb | J149A1A | |
| Bulb Contact | JETEC No. J1-21 | |
| Base | JETEC No. B7-237 or B7-208 | |
| Basing | 8HR | |
| Bulb Contact Alignment | | |
| Anode Contact Aligns with Pin No. 4 | \pm 30 | degrees |

RATINGS (Design Maximum System)

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

| | | |
|---|---------------|----------|
| Maximum Anode Voltage | 20,000 | volts |
| Minimum Anode Voltage | 13,000 | volts |
| Maximum Grid 4 (Focusing Electrode) Voltage . . . | -500 to +1000 | volts |
| Minimum Grid 2 Voltage | 100 | volts |
| Maximum Grid 2 Voltage | 250 | volts |
| Grid 1 Voltage | | |
| Maximum Negative Value | .140 | volts DC |
| Maximum Negative Peak Value | 200 | volts |
| Maximum Positive Value | 0 | volts DC |
| Maximum Positive Peak Value | 2 | volts |
| Maximum Heater Voltage | 6.9 | volts |
| Minimum Heater Voltage | 5.7 | volts |
| Maximum Heater-Cathode Voltage | | |
| Heater negative with respect to cathode | | |
| During warm-up period not to exceed 15 sec. . . | 410 | volts |
| After equipment warm-up period | 180 | volts |
| Heater positive with respect to cathode | | |
| | 180 | volts |

TYPICAL OPERATING CONDITIONS (Cathode Drive Service)

| | | |
|--|--------------|----------|
| Anode Voltage | 16,000 | volts DC |
| Grid #4 Voltage (Focusing Electrode, Note 2) . . | -250 to +150 | volts DC |
| Grid #2 Voltage | 150 | volts DC |
| Cathode to Grid #1 Voltage (Note 1) | 36 to 54 | volts DC |

MAXIMUM CIRCUIT VALUES

Maximum Grid #1 Circuit Resistance 1.5 max. megohm
Grid #2 Circuit Resistance 0.1 min. megohm
Focusing Electrode Circuit Resistance 0.1 min. megohm

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.

CATHODE RAY TUBE DEPARTMENT

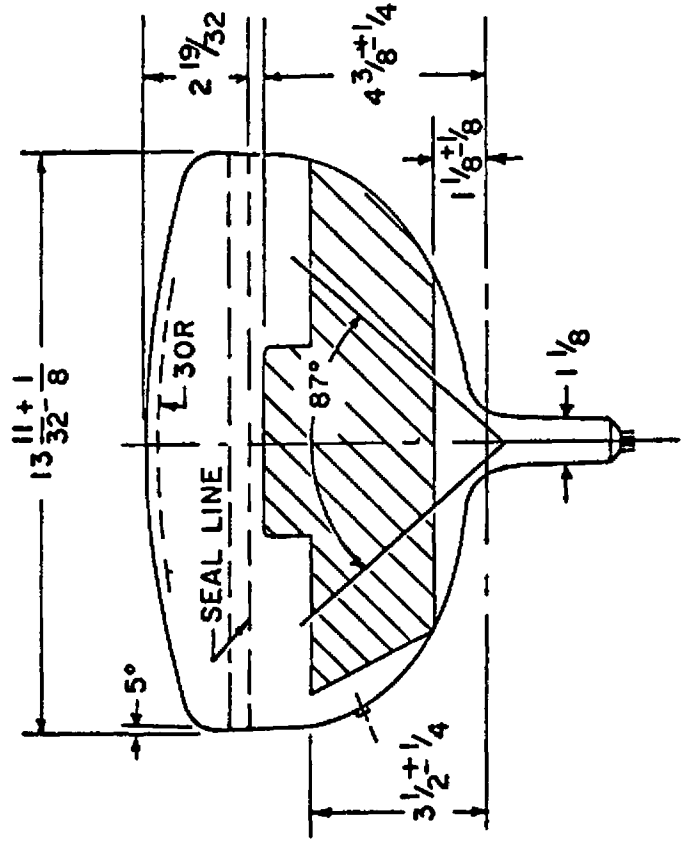
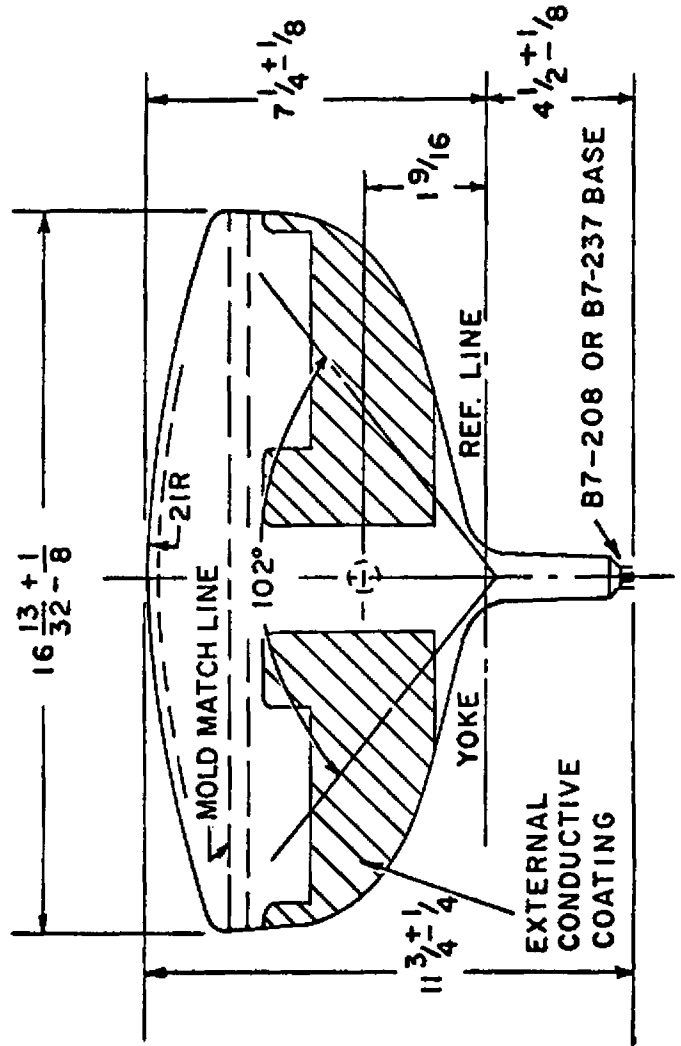
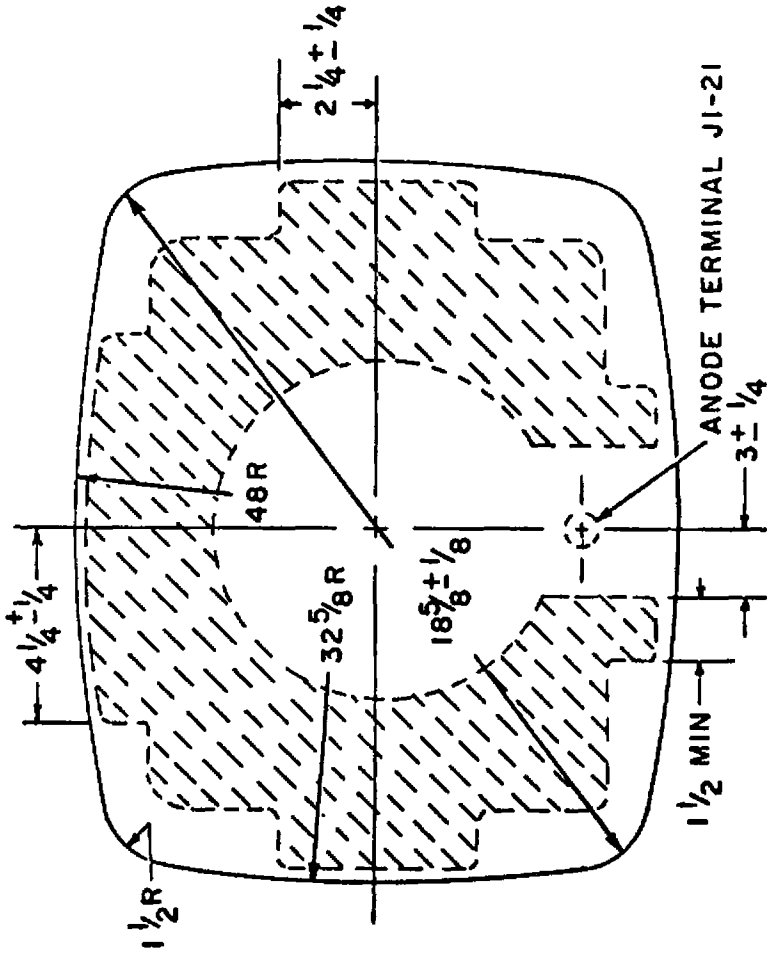


Syracuse, N. Y.

19DVP4

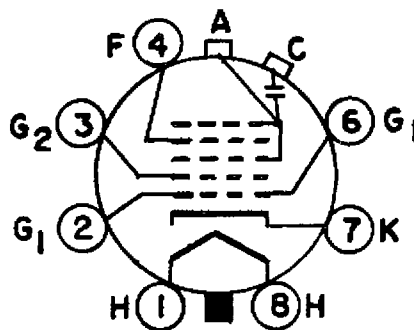
SCREEN DIMENSIONS

| | |
|----------|-------------|
| DIAGONAL | 17-9/16 |
| WIDTH | 15-1/8 |
| HEIGHT | 12 |
| AREA | 172 SQ. IN. |



OUTLINE NOTES

1. The reference line is determined by the intersection of the plane C-C of gage (EIA No. 126) with the glass funnel.
2. Deflection angle on the diagonal is 114 degrees.
3. Anode terminal aligns with pin no. 4 \pm 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.



**BASING DIAGRAM
8 HR**