

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

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

CATHODE RAY TUBE DEPARTMENT
GENERAL  ELECTRIC
Syracuse, N. Y.

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.

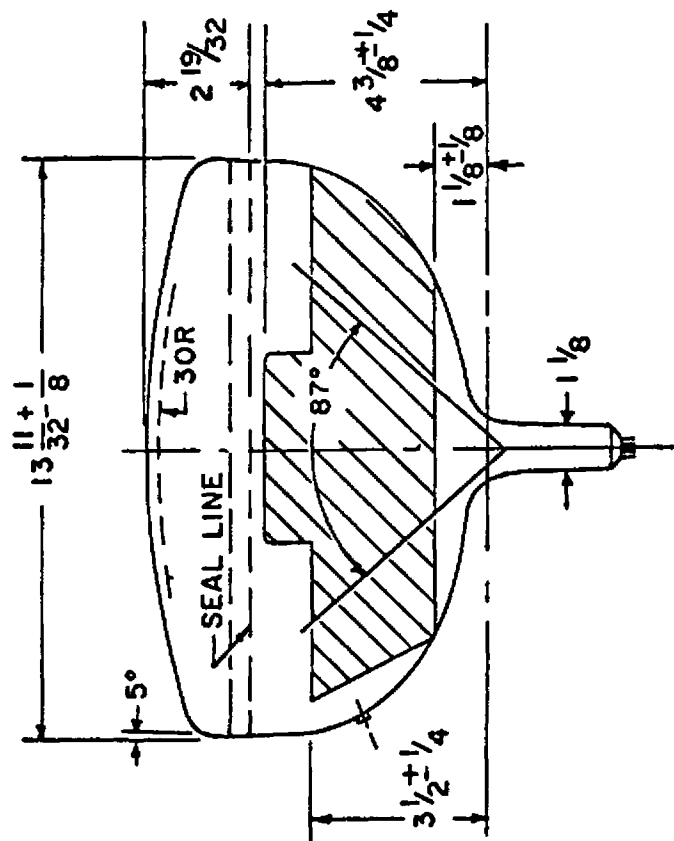
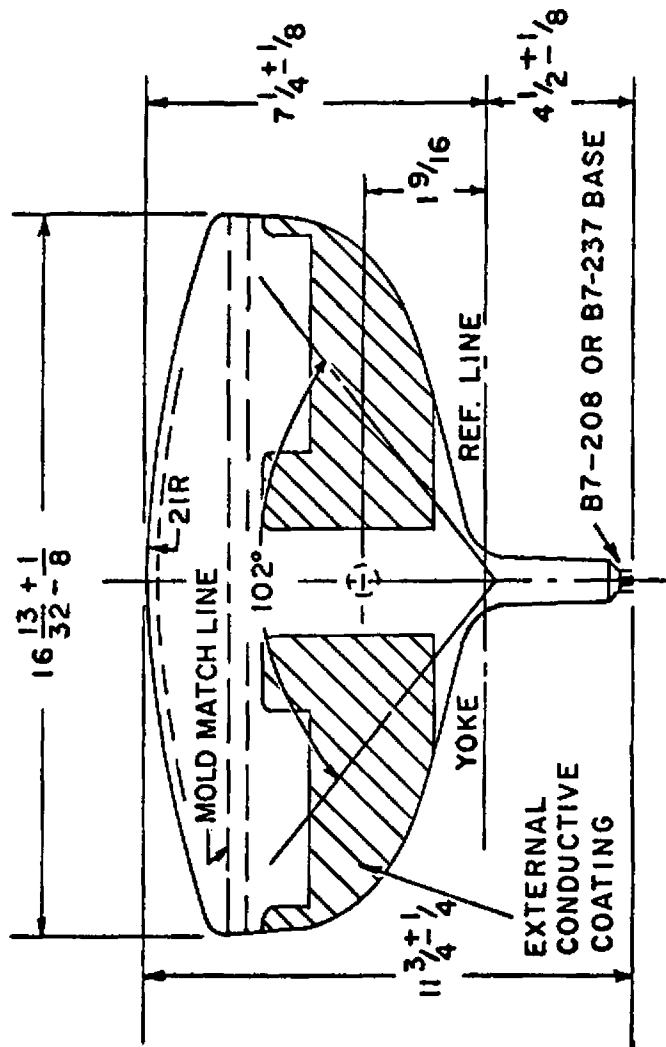
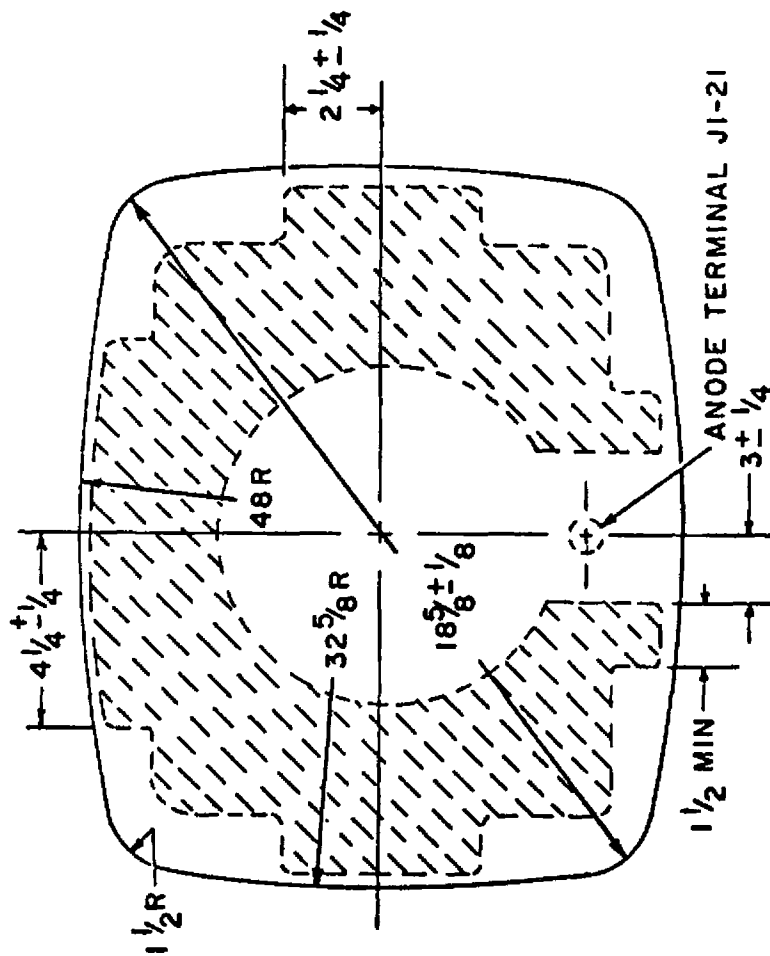
NOTES:

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.

19DVP4

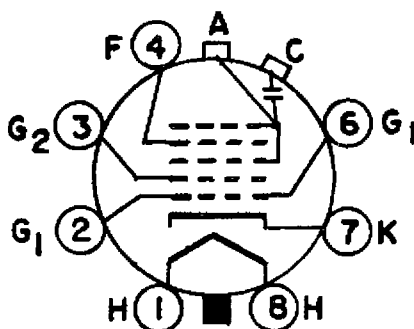
SCREEN DIMENSIONS

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