

19DZP4  
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

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-----DESCRIPTION AND RATING-----  
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The 19DZP4 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, 6.3V, 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



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 . . . . .	18,000 volts
Minimum Anode Voltage . . . . .	10,000 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 . . . . .	13,000 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.

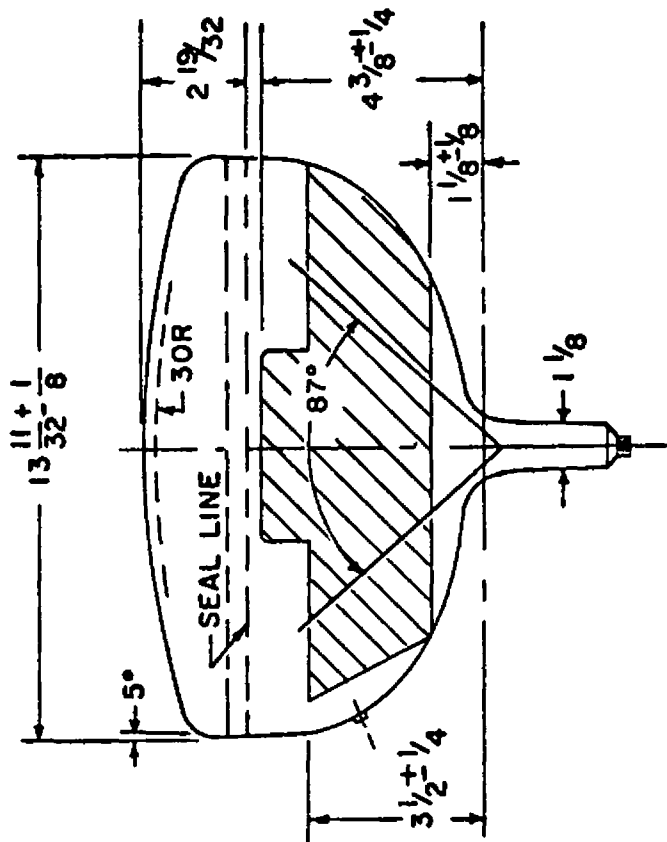
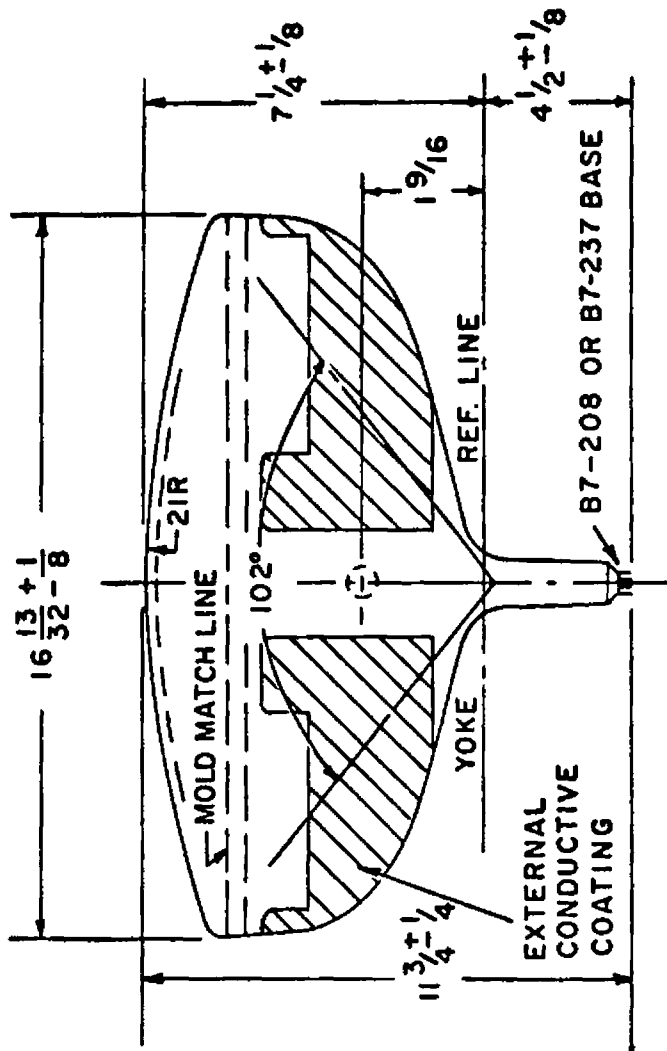
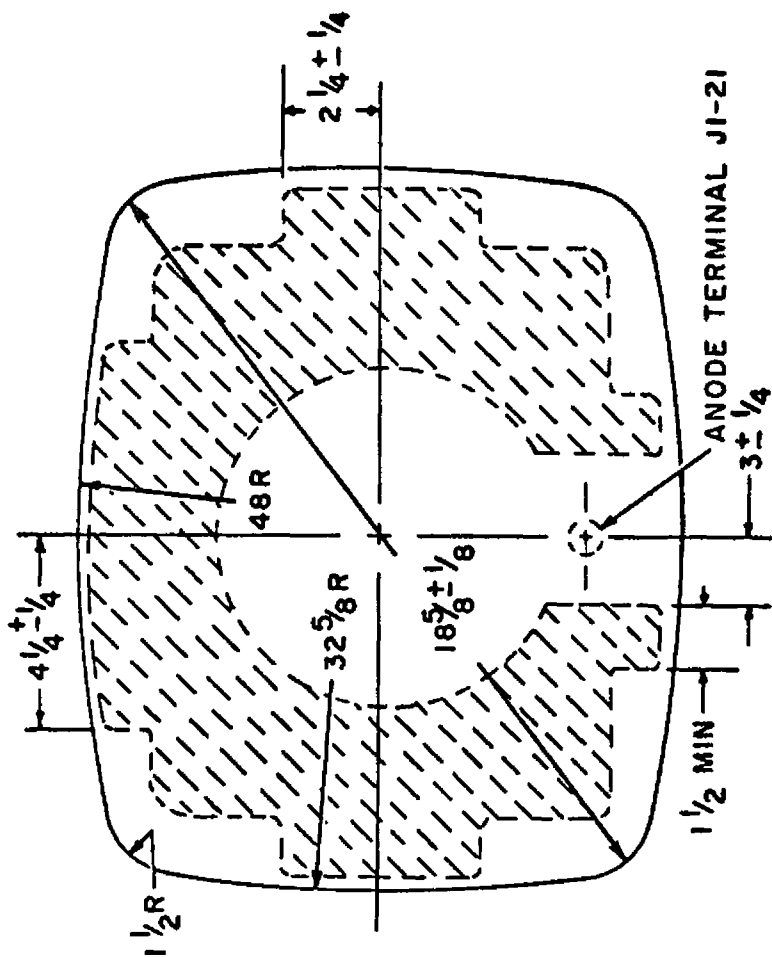
NOTES:

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.

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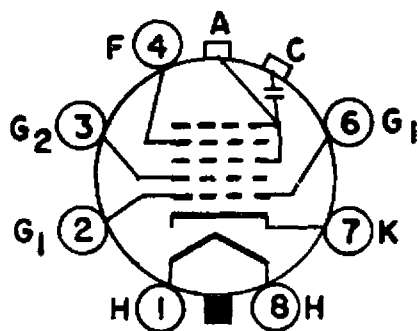
## SCREEN DIMENSIONS

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**