

Picture Tube

PAN-0-PLY TYPE
NO ION-TRAP MAGNET REQUIRED

LOW-VOLTAGE ELECTROSTATIC FOCUS
114° MAGNETIC DEFLECTION

Direct Interelectrode Capacitances

Cathode to all other electrodes.	5	pF
Grid No.1 to all other electrodes.	6	pF
External conductive coating to anode	1250 min-1750 max	pF
Heater Current at 6.3 V.	600 ± 30	mA
Heater Warm-Up Time (Average).	11	s
Electron Gun	Type Requiring No Ion-Trap Magnet	

OPTICAL

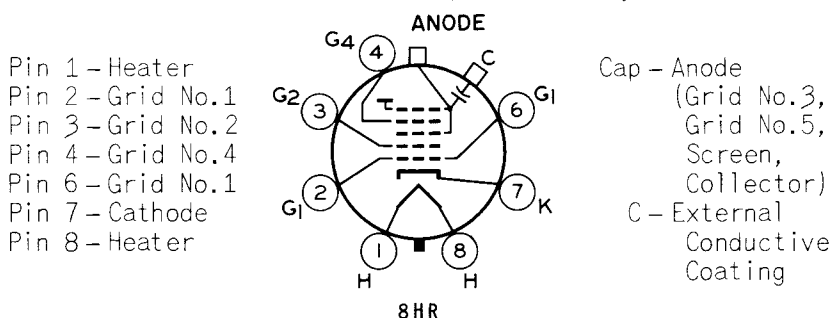
Phosphor	P4—Sulfide Type, Aluminized
For curves, see front of this section	
Faceplate.	Filterglass
Light transmission at center (Approx.)	48%

MECHANICAL

Weight (Approx.)	15 lb
Overall Length	11.625 ± .250 in
Neck Length.	4.375 ± .125 in
Projected Area of Screen	172 sq in
External Conductive Coating ^a	

Type (See CRT OUTLINES 1 at front of this section).	Regular-Band
Contact area for grounding	Near Reference Line
Cap.	Recessed Small Cavity (JEDEC No. J1-21)
Base	Small-Button Neeightar 7-Pin, Arrangement 1, (JEDEC No. B7-208)

TERMINAL DIAGRAM (Bottom View)



MAXIMUM AND MINIMUM RATINGS, DESIGN-MAXIMUM VALUES

Voltages are positive with respect to cathode

Anode Voltage.	11000 min—23000 max	V
Grid-No.4 Voltage		
Positive value	1100 max	V
Negative value	550 max	V
Grid-No.2 Voltage.	200 min—550 max	V
Grid-No.1 Voltage		
Negative peak value.	220 max	V
Negative bias value.	155 max	V
Positive bias value.	0 max	V
Positive peak value.	2 max	V
Heater Voltage	5.7 min—6.9 max	V



19FNP4

Peak Heater-Cathode Voltage

Heater negative with respect to cathode:

During equipment warm-up period ≤ 15 s . . .	450 max	V
After equipment warm-up period	300 max	V

Heater positive with respect to cathode:

Combined AC & DC voltage	200 max	V
DC component	100 max	V

TYPICAL OPERATING CONDITIONS FOR CATHODE-DRIVE SERVICE

Voltages are positive with respect to grid No.1

Anode Voltage.	16000	V
Grid-No.4-Voltage ^b	200	V
Grid-No.2 Voltage.	300	V
Cathode Voltage.	28 to 62	V

For visual extinction of focused raster

Field Strength	0 to 8	G
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Of required adjustable centering magnet

MAXIMUM CIRCUIT VALUE

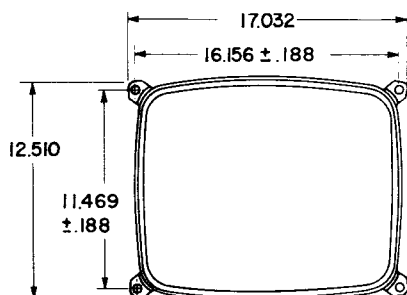
Grid-No.1 Circuit Resistance	1.5 max	M Ω
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^a Includes implosion protection hardware.

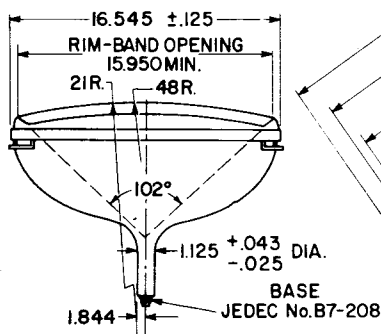
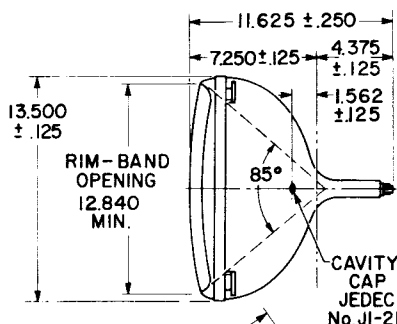
^b The grid-No.4 voltage required for optimum focus of any individual tube will have a value anywhere between 0 and +400 volts with the combined grid-No.1 voltage and video-signal voltage adjusted to give an anode current of 100 microamperes on a 10-1/2-inch by 14-inch pattern from an RCA-2F21 monoscope, or equivalent.

DIMENSIONAL OUTLINE

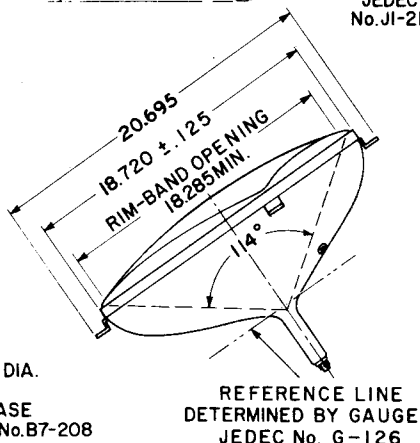
For 19FNP4 (Bulb J149F with Mounting Lugs)



MINIMUM SCREEN
DIAGONAL 17.562
GREATEST WIDTH 15.187
GREATEST HEIGHT 12.000



92CL-13886RI



DIMENSIONS IN INCHES

↔ Indicates a change.

