



CORPORATION

19CQP4

5600 WEST JARVIS AVENUE

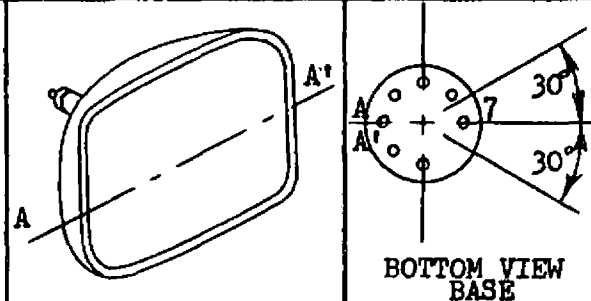
CHICAGO 48, ILLINOIS

TELEPHONE MULBERRY 5-5000

TELETYPE 312-265-1293

DESCRIPTION

19" Direct View	Low G ₂ Voltage (35V.)
Rectangular Glass Envelope	Cathode Drive Design
Spherical Faceplate	114° Magnetic Drive Design
Gray Filter Glass	Electrostatic Focus
Aluminized Screen	External Conductive Coating
6.3 Volt, 600 Ma. Heater	No Ion Trap

ELECTRICAL DATA

Focusing Method

Deflection Angles, Approximate

Horizontal

Vertical

Diagonal

Direct Interelectrode Capacitances

Cathode to all other electrodes, approximate

Grid #1 to all other electrodes, approximate

External Conductive Coating to Anode

Heater Current at 6.3 volts

Heater Warm-up Time

Electrostatic

103 Degrees

86 Degrees

114 Degrees

5 uuf

6 uuf

1900 max. uuf

1400 min. uuf

600+ 10% Ma.

11 Seconds

OPTICAL DATA

Phosphor Number

Light Transmittance at Center, Approximate

P4 Aluminized

78 Percent

MECHANICAL DATA

Overall Length

Greatest Dimensions of Tube

Diagonal

Width

Height

11 5/8 ± 1/4 Inches

18 5/8 ± 1/8 Inches

16 13/32 ± 1/8 Inches

13 11/32 ± 1/8 Inches

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 pin position #7

17 9/16 Inches

15 1/8 Inches

12 Inches

172 Sq. Inches

4 3/8 ± 1/8 Inches

J 149 A1 or equivalent

J1-21

B6-214

7FA

± 30 Degrees

RATINGS (Design Maximum System)

Unless otherwise specified, voltages are positive and measured with respect to Grid #1

Maximum Anode Voltage	19,800 Volts
Minimum Anode Voltage	12,000 Volts
Maximum Grid #4 (Focusing Electrode) Voltage	+ 1100 -500 Volts
Maximum Grid #2 Voltage	60 Volts
Minimum Grid #2 Voltage	25 Volts
Cathode Voltage	100 Volts
Maximum Heater Voltage	7 Volts
Minimum Heater Voltage	5.8 Volts
Maximum Heater-Cathode Voltage	
Heater negatives with respect to cathode	
During warm-up period not to exceed 15 Seconds	-410 Volts
After equipment warm-up period	-180 Volts
Heater positive with respect to cathode	180 Volts

TYPICAL OPERATING CONDITIONS

CATHODE DRIVE SERVICE

Unless otherwise specified, all voltage values are positive with respect to Grid #1

Anode Voltage	16,000 Volts
Grid #4 Voltage (focusing electrode) 2, 3	250 Volts
Grid #2 Voltage	35 Volts
Cathode Voltage 1	25 to 50 Volts

MAXIMUM CIRCUIT VALUES

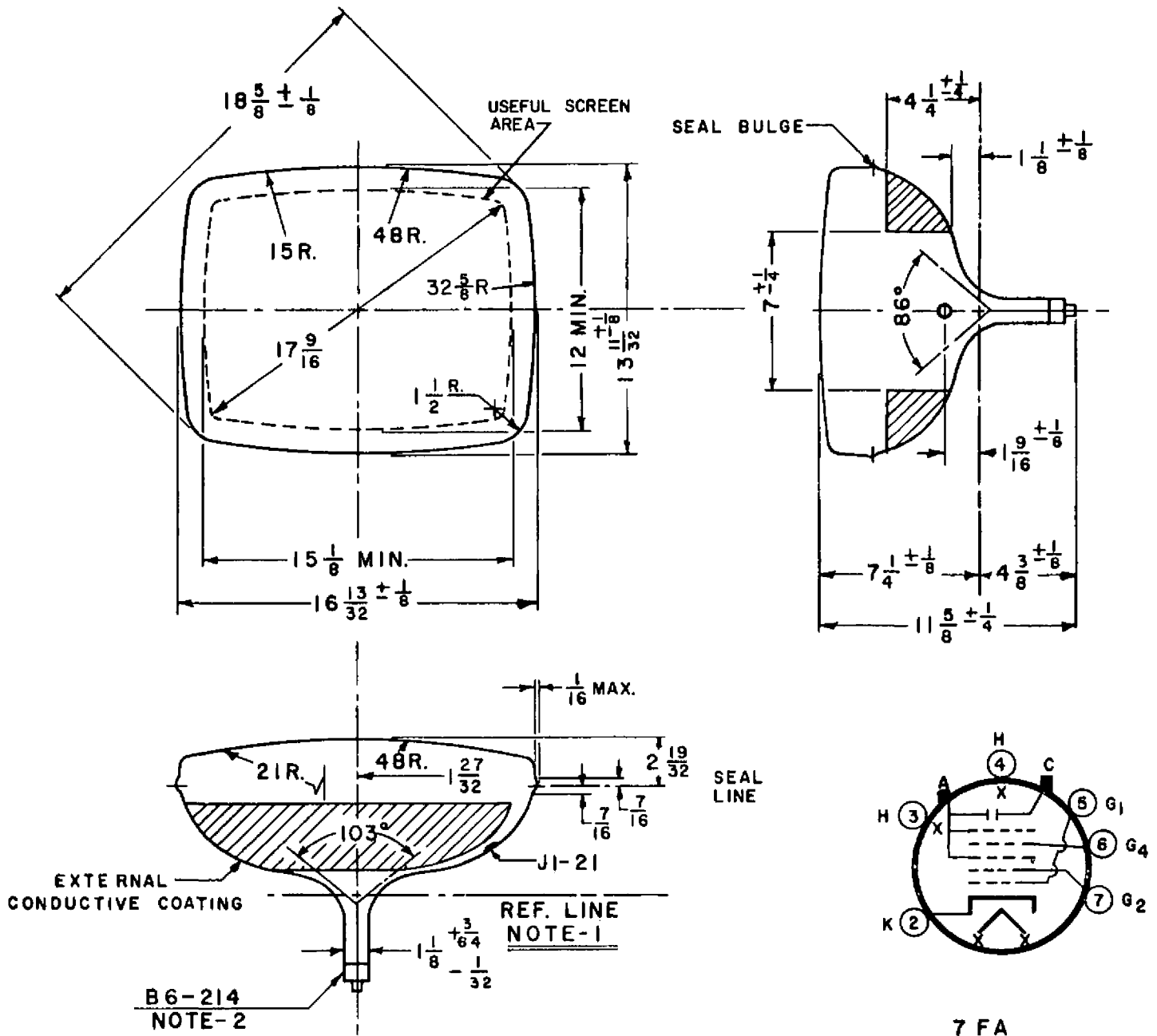
Maximum Grid #1 Circuit Resistance	1.5 Megohms
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NOTES

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 12 pattern from 2F21 Monoscope or equivalent.
3. Individual tubes will have satisfactory focus at some value between 0 and 500 Volts.

May, 1963

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NOTE:

1. REFERENCE LINE AS DETERMINED BY PLANE C-C' OF J.E.D.E.C. REFERENCE LINE GAUGE NO. 126

2. BASE PIN NO. 7 ALIGNS WITH ANODE CONTACT WITHIN 30°