



CORPORATION

23ZP4

4245 NORTH KNOX AVE.

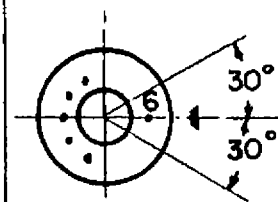
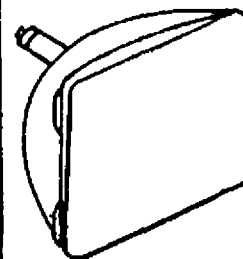
CHICAGO 41, ILLINOIS

TELEPHONE MULBERRY 5-5000

TELETYPE CG 2790

DESCRIPTION

23" Direct View	Low G ₂ Voltage (50 V.)
Rectangular Glass Envelope	Cathode Drive Design
Spherical Faceplate	90° Magnetic Deflection
Gray Filter Glass	Electrostatic Focus
Aluminized Screen	External Conductive Coating
6.3 Volt, 600 Ma. Heater	No Ion Trap
Bonded Implosion Panel	



BOTTOM VIEW
BASE

ELECTRICAL DATA

Focusing Method

Electrostatic

Deflection Angles, Approximate

Horizontal

76 Degrees

Vertical

62 Degrees

Diagonal

90 Degrees

Direct Interelectrode Capacitances

Cathode to all other electrodes, approximate

5 uuf

Grid #1 to all other electrodes, approximate

6 uuf

External Conductive Coating to Anode

2500 max. uuf

2000 min. uuf

Heater Current at 6.3 volts

600 $\pm$ 10% ma

Heater Warm-up time

11 Seconds

OPTICAL DATA

Phosphor Number

P4, Aluminized

Light Transmittance at Center, Approximate

40 Percent

MECHANICAL DATA

Overall Length

19 15/32 $\pm$ 7/16 Inches

Greatest Diameter of Tube (Implosion Panel)

Diagonal

24 45/64 $\pm$ 3/32-1/16 Inches

Width

21 5/16 $\pm$ 1/8 Inches

Height

17 13/32 $\pm$ 3/32-1/8 Inches

Minimum Useful Screen Dimensions (Projected)

Diagonal

22 5/16 Inches

Horizontal Axis

19 5/16 Inches

Vertical Axis

15 1/4 Inches

Area

282 Sq. Inches

Neck Length

5 5/8 $\pm$ 3/16 Inches

Bulb

C - 187 EXP #2 or equivalent

Implosion Panel

FP198A1 or equivalent

Bulb Contact

J1-21

Base

B6-63

Basing

12L

Bulb Contact Alignment

Anode contact aligns with pin position #6

 $\pm$ 30 Degrees

RATINGS (Design Maximum System)

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

Maximum Anode Voltage	22,000	Volts
Minimum Anode Voltage	15,000	Volts
Maximum Grid #4 (Focusing Electrode) Voltage	±1100 - 500	Volts
Maximum Grid #2 Voltage	70	Volts
Minimum Grid #2 Voltage	40	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	18,000	Volts
Grid #4 Voltage (Focusing Electrode) 2,3	250	Volts
Grid #2 Voltage	50	Volts
Cathode Voltage ¹	35 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 19 5/16 x 15 1/4 pattern from RCA 2F21 Monoscope or equivalent.
3. Individual tubes will have satisfactory focus at some value between 0 and 500 volts.

THE

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CORPORATION

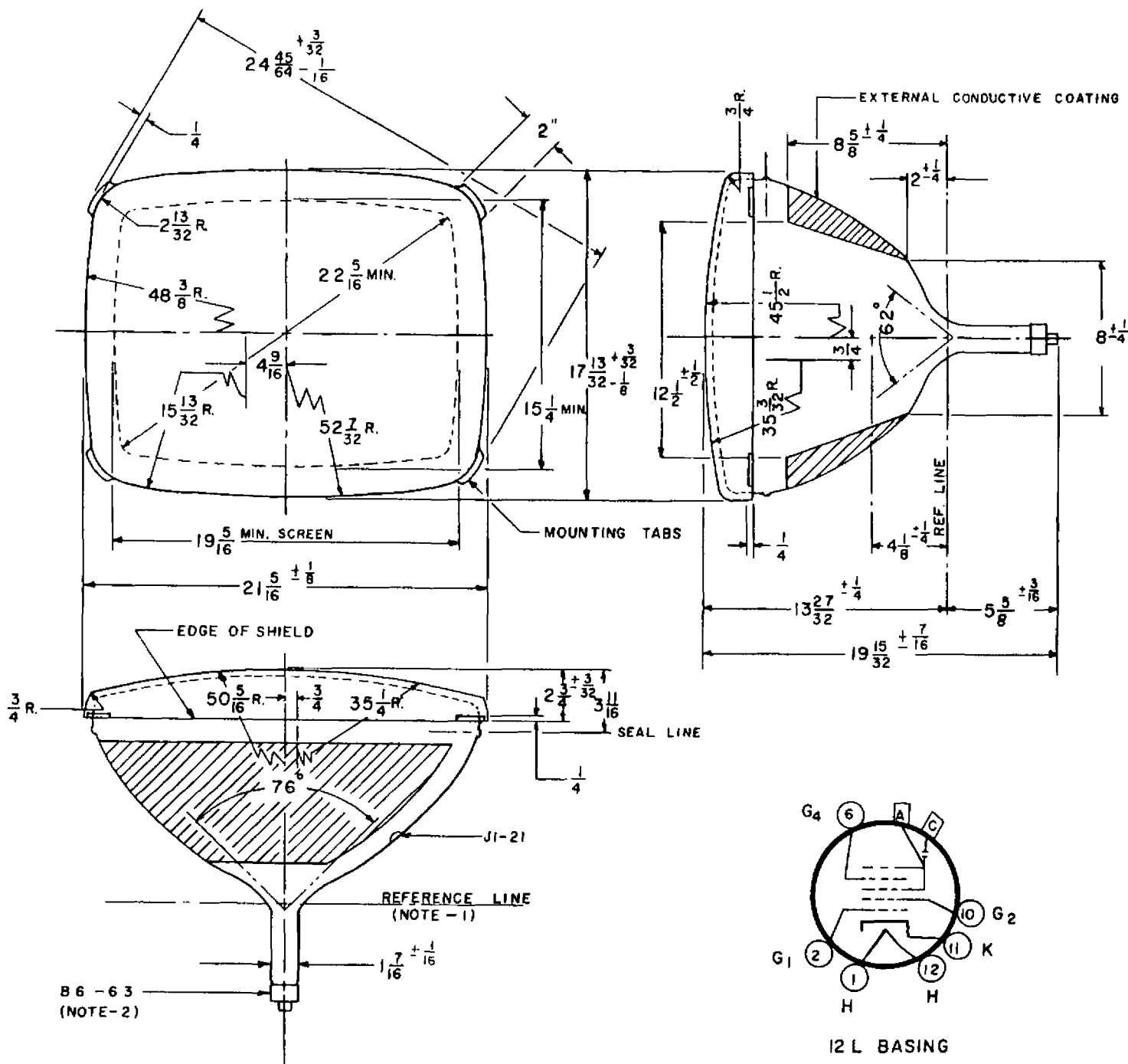
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**NOTE:**

1. REFERENCE LINE AS DETERMINED BY PLANE C-C OF J.E.D.E.C. REFERENCE LINE GAUGE 116

2. BASE PIN NO.6 ALIGNS WITH ANODE CONTACT WITHIN 30°

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