



CORPORATION

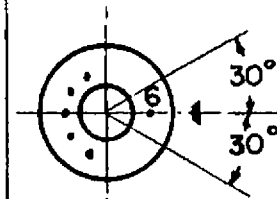
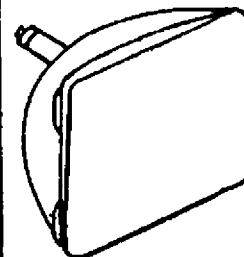
23ZP4

4245 NORTH KNOX AVE.

CHICAGO 41, ILLINOIS

TELEPHONE MULBERRY 5-5000  
TELETYPE CG 2790DESCRIPTION

23" Direct View	Low G <sub>2</sub> 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  
BASEELECTRICAL 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 ± 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 ± 7/16 Inches
Greatest Diameter of Tube (Implosion Panel)	
Diagonal	24 45/64 ± 3/32-1/16 Inches
Width	21 5/16 ± 1/8 Inches
Height	17 13/32 ± 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 ± 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	±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 <sup>1</sup>	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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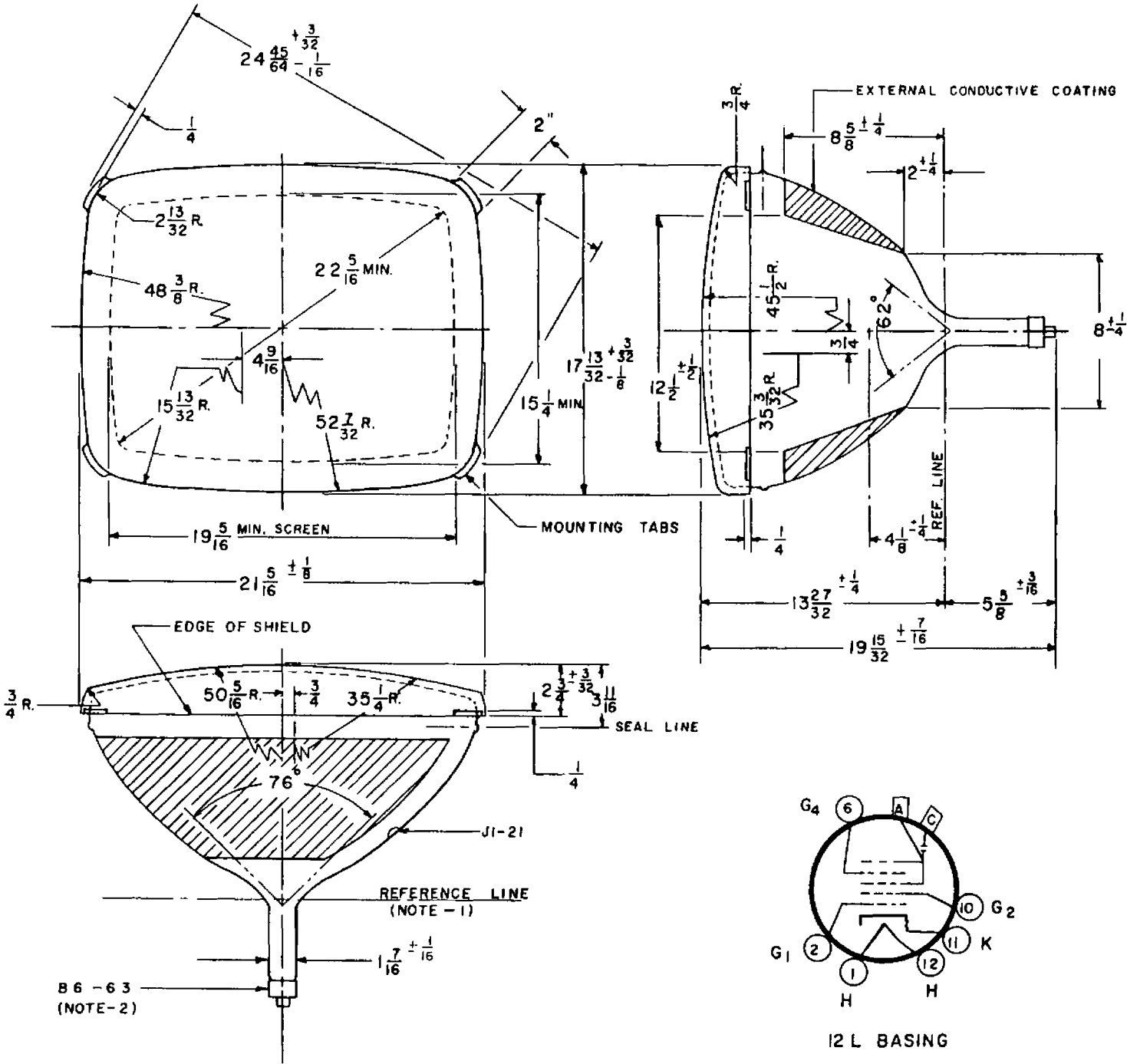
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NOTE:

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°