



## DESCRIPTION

|                            |                             |
|----------------------------|-----------------------------|
| 23" Direct View            | Bonded Implosion Panel      |
| Rectangular Glass Envelope | 92° Magnetic Deflection     |
| Gray Filter Glass          | Electrostatic Focus         |
| Aluminized Screen          | External Conductive Coating |
| 6.3 Volts, 600 Ma. Heater  | No Ion Trap                 |

## ELECTRICAL DATA

|   |                |
|---|----------------|
| Focusing Method                           | Electrostatic  |
| Deflection Angles (Approximate)           |                |
| Horizontal                                | 81 Degrees     |
| Vertical                                  | 66 Degrees     |
| Diagonal                                  | 92 Degrees     |
| Direct Interelectrode Capacitances        |                |
| Cathode to all other electrodes (approx.) | 5 uuf          |
| Grid #1 to all other electrodes (approx.) | 6 uuf          |
| External Conductive Coating to Anode      | 2,500 max. uuf |
|   | 2,000 min. uuf |
| Heater Current at 6.3 volts               | 600+ 10% Ma    |
| Heater Warm-up time                       | 11 Seconds     |

## OPTICAL DATA

|   |                            |
|---|----------------------------|
| Phosphor Number                         | P4 Aluminized <sup>1</sup> |
| Light Transmittance at Center (approx.) | 46 Percent                 |

## MECHANICAL DATA

|  |                       |
|--|-----------------------|
| Overall Length   | 18 3/16 ± 7/16 inches |
| Greatest Dimensions of Tube                            |                       |
| Diagonal   | 23 7/16 ± 1/8 inches  |
| Width  | 20 1/2 ± 1/8 inches   |
| Height   | 16 1/2 ± 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 1/2 ± 3/16 inches   |
| Bulb   | J187D1                |
| Implosion Panel  | FP187B2               |
| Bulb Contact   | J1-21                 |
| Base   | 86-203                |
| Basing   | 12L                   |
| Bulb Contact Alignment                                 |                       |
| J1-21 contact aligns with pin position #6 ± 30 degrees |                       |

from JEDEC release #4821, Oct. 5, 1964

# 23EDP4

## RATINGS (Design Maximum System)

Unless otherwise specified, voltage values are positive and measured with respect to cathode.

|  |              |
|--|--------------|
| Maximum Anode Voltage                        | 25,000 Volts |
| Minimum Anode Voltage                        | 16,000 Volts |
| Maximum Grid #4 (Focusing Electrode) voltage | +1100-550    |
| Maximum Grid #2 Voltage                      | 550 Volts    |
| Minimum Grid #2 Voltage                      | 200 Volts    |
| Grid #1 Voltage                              |              |
| Maximum Negative Value                       | 155 Volts DC |
| Maximum Negative Peak Value                  | 200 Volts    |
| Maximum Positive Value                       | 0 Volts      |
| Maximum Positive Peak Value                  | 2 Volts      |
| Maximum Heater Voltage                       | 7 Volts      |
| Minimum Heater Voltage                       | 5.8 Volts    |
| Maximum Heater-Cathode Voltage               |              |
| Heater negative with respect to cathode      |              |
| During warm-up time no to exceed 15 seconds  | 450 Volts    |
| After equipment warm-up period               | 200 Volts    |
| Heater positive with respect to cathode      | 200 Volts    |

## TYPICAL OPERATING CONDITIONS

### GRID DRIVE SERVICE

Unless otherwise specified, all voltage values are positive with respect to cathode.

|   |                     |
|---|---------------------|
| Anode Voltage   | 20,000 Volts DC     |
| Grid #4 (Focusing Electrode) voltage<br>(Notes 2 and 3) | 250 Volts DC        |
| Grid #2 Voltage   | 300 Volts DC        |
| Grid #1 Voltage (Note 1)                                | -35 to -72 Volts DC |

### MAXIMUM CIRCUIT VALUES

|                                    |             |
|------------------------------------|-------------|
| Maximum Grid #1 circuit resistance | 1.5 Megohms |
|------------------------------------|-------------|

### 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 200 micro-amperes 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



CORPORATION

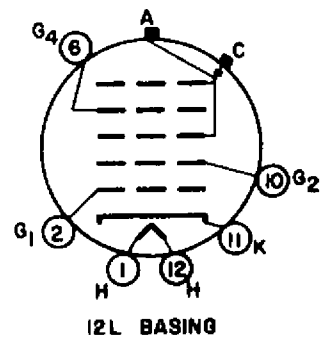
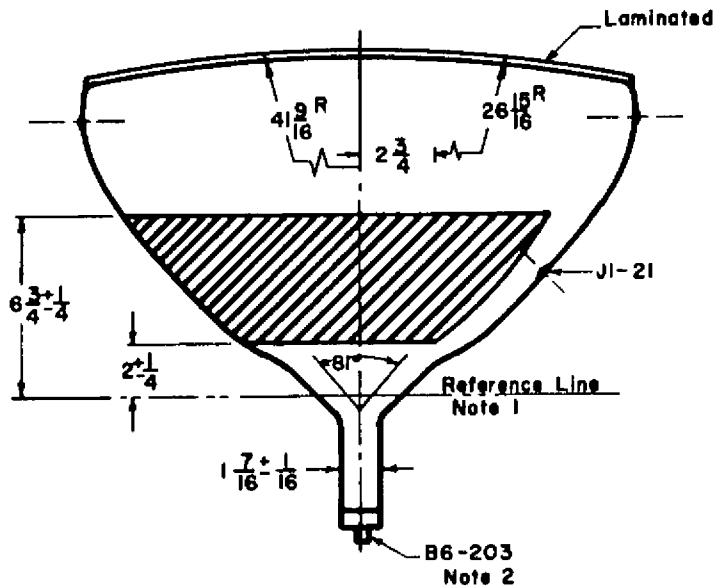
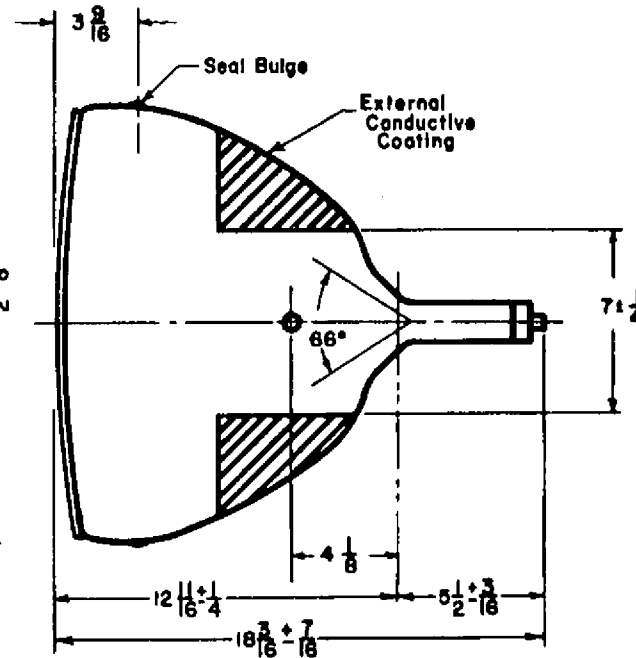
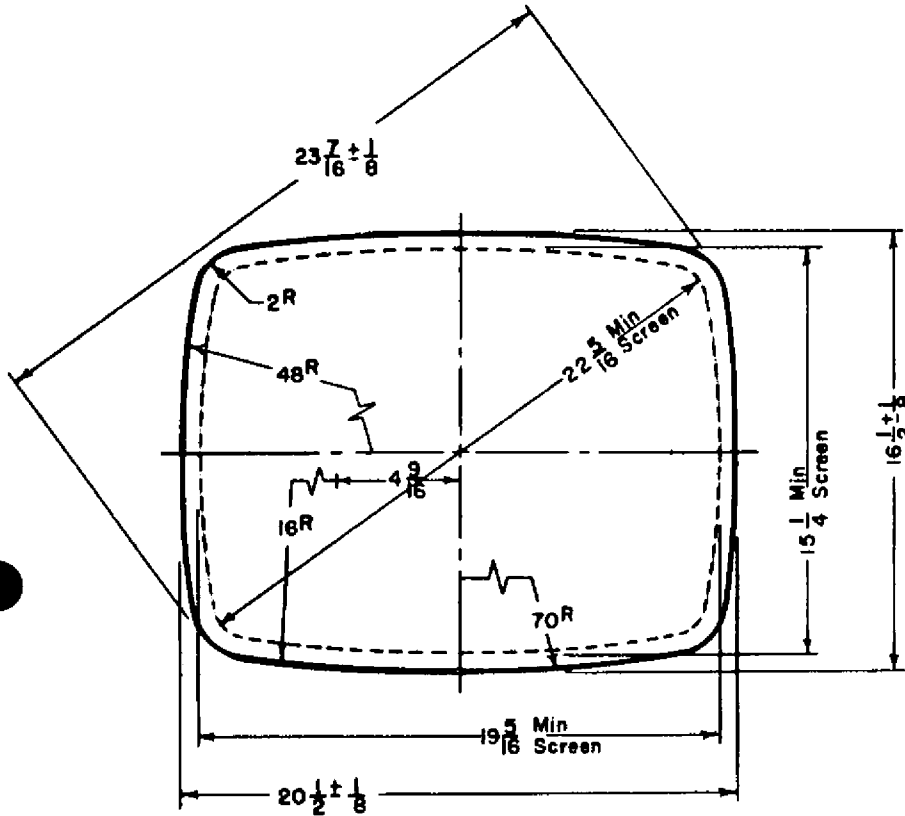
5600 WEST JARVIS AVENUE

CHICAGO 48, ILLINOIS

TELEPHONE MULBERRY 5-5000

TELETYPE 312-265-1293

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NOTES:

1. Reference Line determined by Plane C-C' of J.E.D.E.C. Reference Line Gauge no. 116.
2. Base pin no. 6 aligns with anode contact within 30°