

February 17, 1958

TELEVISION PICTURE TUBE TYPE 17CXP4

90° Magnetic Deflection
Rectangular Glass
Aluminized
Gray Filter Glass

Low G_2 Voltage (50 Volts)
6.3 Volt, 0.45 Amp. Heater
Cathode Drive Design
Electrostatic Focus

External Conductive Coating
Spherical Faceplate
No Ion Trap
14-5/16" x 11-1/8" Picture

ELECTRICAL:

Cathode	Cooled Unipotential
Heater:	
Voltage (ac or dc)	6.3 Volts
Current	0.45 Ampere
Direct Interelectrode Capacitances:	
Grid 1 to all other Electrodes	6 uuf
Cathode to all other Electrodes	5 uuf
External Conductive Coating to Anode:	
Maximum	1500 uuf
Minimum	1000 uuf
Screen:	
Phosphor	Aluminized P4
Fluorescence	White
Persistence	Short
Focusing Method	Electrostatic
Deflection Method	Magnetic
Horizontal Angle (Approx.)	85°
Vertical Angle (Approx.)	68°
Diagonal Angle (Approx.)	90°
No-Ion Trap Gun	No Magnet Required

MECHANICAL:

Mounting Position	Any
Screen Dimensions:	
Height	11-1/8" Min.
Width	14-5/16" Min.
Diagonal	15-9/16" Min.
Face Plate	Spherical Outer and Inner Surfaces
Glass	Neutral Filter
Transmission	74 per cent
Bulb Dimensions:	
Height	12-1/4" ± 1/8"
Width	15-3/8" ± 1/8"
Diagonal	16-5/8" ± 1/8"
Overall Length	14-5/8" ± 3/8"
Net Weight (Approx.)	13 Pounds
Anode Terminal	Recessed Small Cavity Cap (JETEC J1-21)
Base	Small Shell Duodecal 6-Pin (JETEC B6-63)

MAXIMUM RATINGS, Cathode Drive Service:

Design Center Values

Anode Voltage*	16000 max.	Volts
Grid 4 to Grid 1 Voltage:		
Positive Value	1000 max.	Volts
Negative Value	500 max.	Volts
Grid 2 to Grid 1 Voltage	68 max.	Volts
Cathode to Grid 1 Voltage:		
Positive Bias Value	140 max.	Volts
Negative Peak Value	0 max.	Volts
Peak Heater-Cathode Voltage:		
Heater Negative with Respect to Cathode:		
During Warmup Period of 15 sec. max.	410 max.	Volts
After Equipment Warmup Period	180 max.	Volts
Heater Positive with Respect to Cathode		
Cathode	180 max.	Volts

TYPICAL OPERATING CONDITIONS, Cathode Drive Service:

Anode Voltage	12000	14000 Volts
Grid 4 to Grid 1 Voltage	-75 to +325	-50 to +350 Volts
Grid 2 to Grid 1 Voltage	50	50 Volts
Cathode to Grid 1 Voltage for Raster Cutoff Δ	32 to 47	32 to 47 Volts

LIMITING CIRCUIT VALUES:

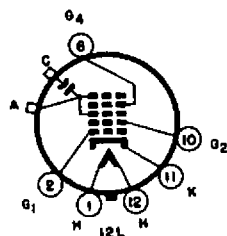
Grid 1 Circuit Resistance	1.5 max. Megohms
Grid 2 Circuit Resistance**	0.1 min. Megohms
Grid 4 Circuit Resistance**	0.1 min. Megohms

* Brilliance and definition decrease with decreasing anode voltage. In general, anode voltage should not be less than 12000 volts.

**Protective resistance in the G_2 and G_4 circuits is advisable to prevent damage to the tube.

Δ Raster size 11-1/8" x 14-5/16"

Inasmuch as the tube rating permits operation at voltages as high as 17.5 kilovolts (absolute value), shielding of the tube for x-ray radiation may be needed whenever the operating conditions involve voltage in excess of 16 kilovolts.

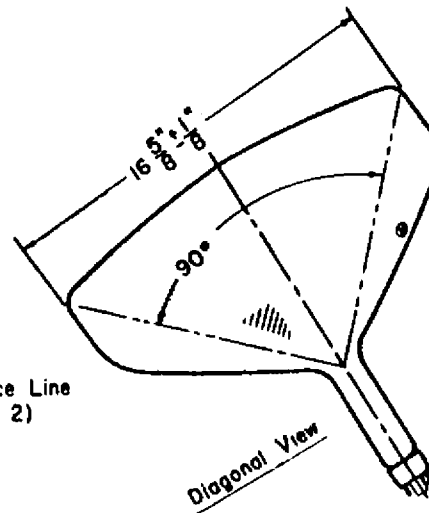
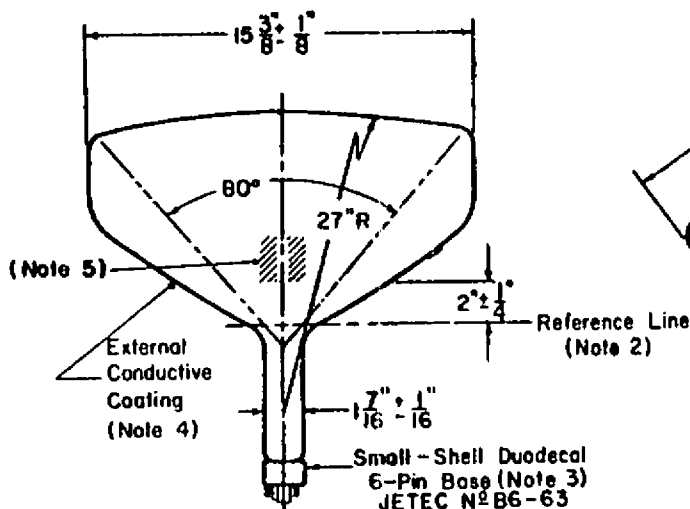
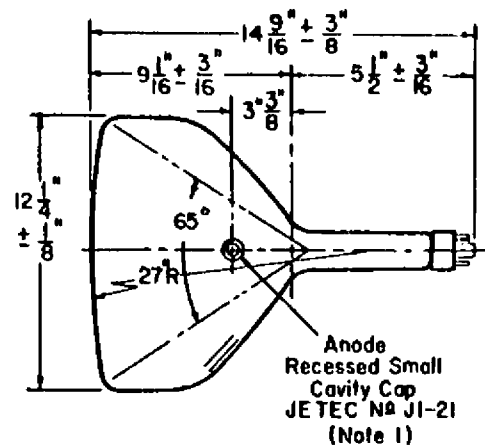
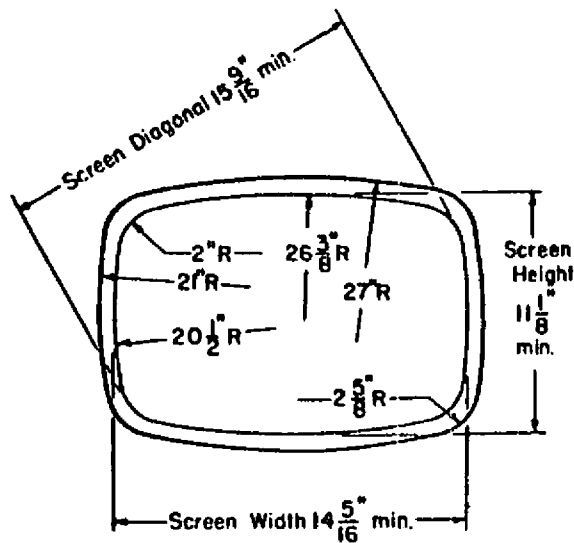


Bottom View

A - Grids 3 & 5, Collector.

C - External Conductive Coating

Cathode Ray Tube Section



CE-C1266

NOTE 1: The plane through the tube axis and the base pin No. 6 may vary from the plane through the tube axis and the bulb terminal by an angular tolerance of $\pm 30^\circ$ measured about the tube axis. The bulb terminal is on the same side of the tube as pin No. 6.

NOTE 2: With the tube neck inserted through the flared end of REFERENCE-Line Gauge (JETEC No. 116) and with the tube seated in the gauge, the reference line is determined by the intersection of the plane cc' (face of the flared end) of the gauge with the glass funnel.

NOTE 3: The socket should not be mounted rigidly but it should be allowed to move freely and it should have flexible leads. The bottom circumference of the base shell will lie within a circle concentric with the bulb axis and having a diameter of $2\frac{3}{4}$.

NOTE 4: External conductive coating must be grounded.

NOTE 5: Contact area of external conductive coating $2''$ min. $\times 2''$ min. located $2'' \pm \frac{1}{4}$ from Reference Line 90° counterclockwise from anode button as viewed from base end of tube.