

August 4, 1958

TELEVISION PICTURE TUBE TYPE 17CYP4

90° Magnetic Deflection
Rectangular Glass
Aluminized
Gray Filter Glass

Electrostatic Focus
Lightweight Tube
4-1/2" Neck Length

External Conductive Coating
Spherical Faceplate
14-3/4" x 11-11/16" Picture
No Ion Trap

ELECTRICAL:

Cathode	Coated Unipotential
Heater:	
Voltage (ac or dc)	6.3 Volts
Current	0.6 Ampere
Direct Interelectrode Capacitances:	
Grid 1 to all other Electrodes	6 uuf
Cathode to all other Electrodes	5 uuf
External Conductive Coating:	
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:	
Screen Area, Min.	155 Sq. Inches
Height	11-11/16" Min.
Width	14-3/4" Min.
Diagonal	15-5/8" Min.
Faceplate	Spherical Inner & Outer Surfaces
Glass	Neutral Filter
Transmission	77%
Bulb	J132½C
Bulb Dimensions:	
Height	12-3/4" ± 1/8"
Width	15-5/8" ± 1/8"
Diagonal	16-9/16" ± 1/8"
Overall Length	14" ± 3/8"
Net Weight, approx.	10 Pounds
Anode Terminal	Recessed Small Cavity Cap (JETEC J1-21)
Base	Small Shell Duodecal 6-Pin (JETEC B6-203)

MAXIMUM RATINGS:

Design Center Values	
Anode Voltage*	16000 max. Volts
Grid 4 Voltage:	
Positive Value	1000 max. Volts
Negative Value	500 max. Volts
Grid 2 Voltage	500 max. Volts
Grid 1 Voltage:	
Negative Bias Value	140 max. Volts
Positive 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	180 max. Volts

TYPICAL OPERATING CONDITIONS:

Anode Voltage	14000 Volts
Grid 4 Voltage	-50 to +350 Volts
Grid 2 Voltage ▲	450 Volts
Grid 1 Voltage for Raster Cutoff ■ ...	39 to 105 Volts

LIMITING CIRCUIT VALUES:

Grid 1 Circuit Resistance	1.5 max. Megohms
Grid 2 Circuit Resistance ▲	10000 ohms
Grid 4 Circuit Resistance ▲	10000 ohms

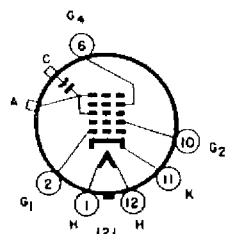
* Brilliance and definition decrease with decreasing anode voltage. In general, anode voltage should not be less than 12000 volts.

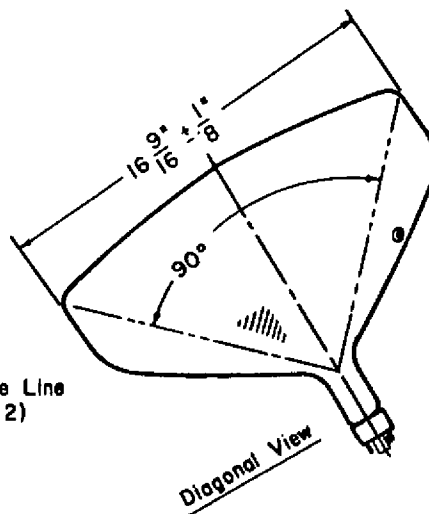
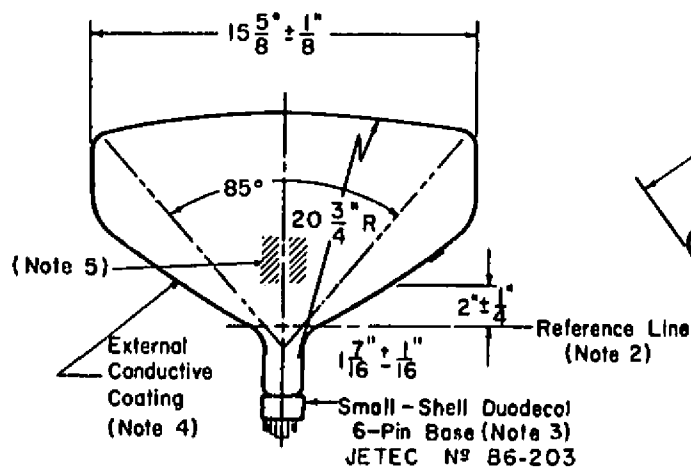
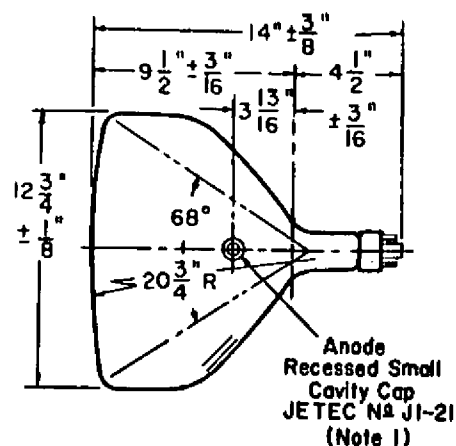
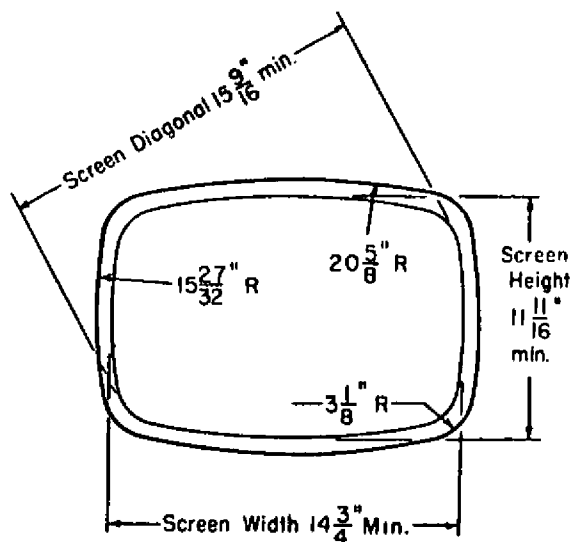
▲ Protective resistance in the Grid 2 and Grid 4 circuits is advisable to prevent damage to the tube.

▲ It is recommended that Grid 2 be operated at a voltage greater than 300 volts since resolution is affected below this level.

■ Raster size is 11-11/16" x 14-3/4".

Inasmuch as the tube rating permits operation at voltages as high as 17.6 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.





CE-C1321

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.