May 29, 1958

TELEVISION PICTURE TUBE TYPE 17CZP4

90° Magnetic Deflection
Rectangular Glass
Aluminized
Gray Filter Glass

Electrostatic Focus
4-1/2" Neck Length

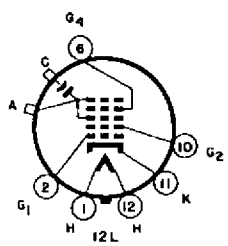
External Conductive Coating
Spherical Faceplate
No Ion Trap
14-5/16" x 11-1/8" Picture

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.	149	Sq. Inches
Height	11-1/8"	Min.
Width	14-5/16"	Min.
Diagonal	15-9/16"	Min.
Faceplate	Spherical Outer & Inner Surfaces	
Glass	Neutral Filter	
Transmission	74	Per Cent
Bulb	J133G1	
Bulb Dimensions:		
Height	12-1/4" ± 1/8"	
Width	15-3/8" ± 1/8"	
Diagonal	16-5/8" ± 1/8"	
Overall Length	13-5/8" ± 3/8"	
Net Weight, approx.	13	Pounds
Anode Terminal	Recessed Small Cavity Cap (JETEC J1-21)	
Base	Small Shell Duodecal 6-Pin (JETEC B6-203)	
Basing	12L	



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 10000 volts.

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

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

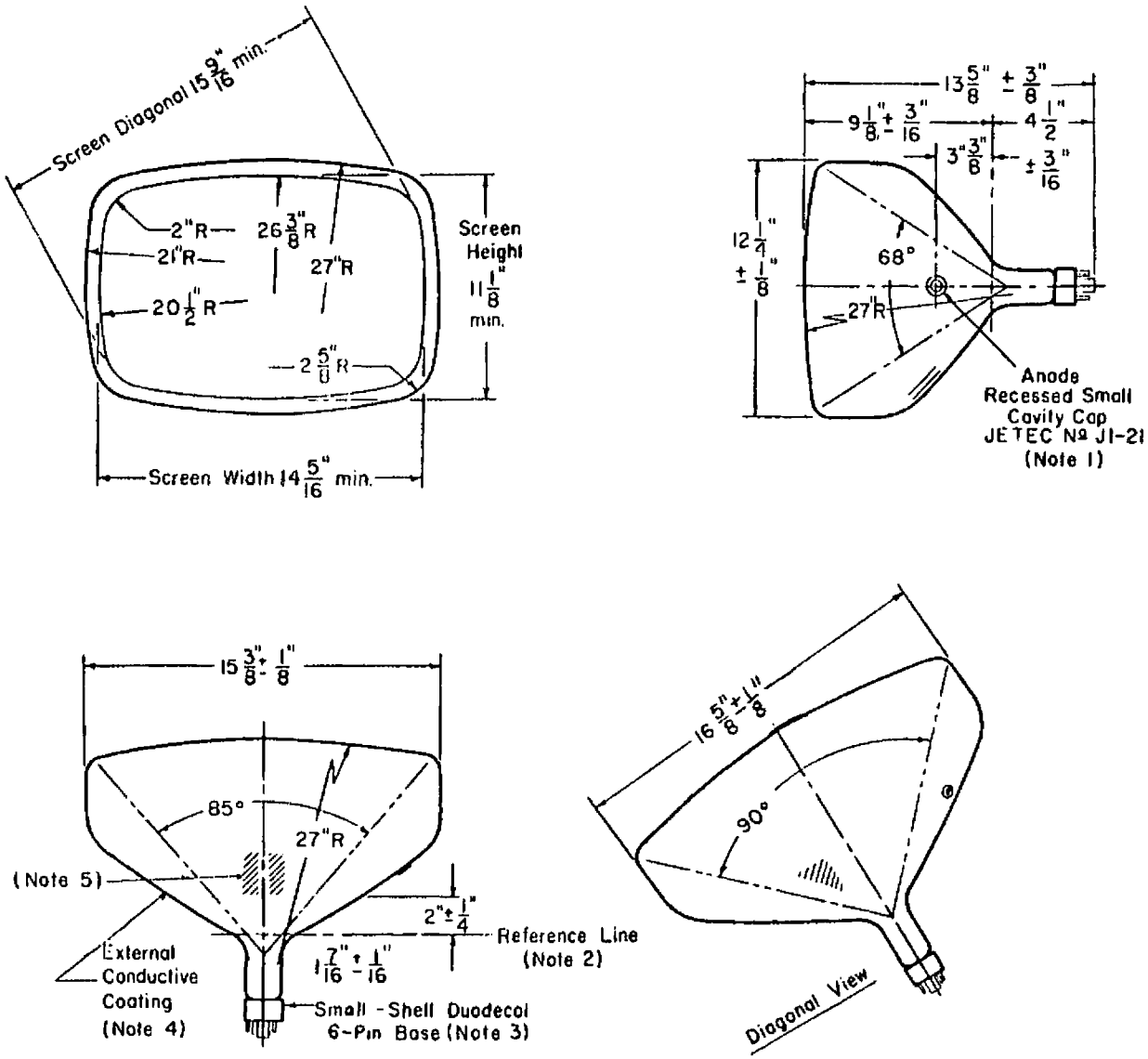
■ Raster size is 11-1/8" x 14-5/16"

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.

NOTE: It is recommended that centering magnets be within 2-11/16" of yoke reference line.

Cathode Ray Tube Section

from JETEC release #2219, June 16, 1958



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 ±30° 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 3".

NOTE 4. External conductive coating must be grounded.

NOTE 5. Contact area of external conductive coating 2" min. x 2" min. located 2" ± 1/4" from reference line 90° counterclockwise from anode button as viewed from base end of tube.