

Cathode-Ray Tube Type 17CLP4

The 17CLP4 is a short neck 17" 90° rectangular, electrostatic focus and magnetic deflection direct-view picture tube. It has a filter glass faceplate, metal-backed screen, and an external ion trap magnet of the single field type. The tube has a high capacity external conductive coating, which when grounded serves as a filter capacitor, and aids in the suppression of radiation.

GENERAL DATA

Focusing Method	Electrostatic
Deflection Method	Magnetic
Deflection Angles (approx.)	
Horizontal	85 Degrees
Diagonal	90 Degrees
Phosphor	Aluminized P4
Fluorescence	White
Persistence	Medium
Faceplate	Gray Filter Glass
Light Transmission (approx.)	74%

ELECTRICAL DATA

Heater Voltage	6.3 Volts
Heater Current	0.6 ± 10% Amperes
Direct Interelectrode Capacitances (approx.)	
Cathode to All Other Electrodes	5 uuf
Grid No.1 to All Other Electrodes	6 uuf
External Conductive Coating to Anode ¹	2300 uuf Max. 1800 uuf Min.

MECHANICAL DATA

Overall Length	15 5/8 ± 3/8 Inches
Greatest Bulb Dimensions	
Diagonal	16 5/8 ± 1/8 Inches
Width	15 3/8 ± 1/8 Inches
Height	12 9/32 ± 1/8 Inches
Minimum Useful Screen Dimensions (Max. assured)	11 1/8 x 14 5/16 Inches
Minimum Useful Screen Area	149 Sq.In.
Bulb Contact - Recessed Small Cavity Cap	J1-21
Base - Small Shell Duodecal 6-pin	B6-63
Basing	12L
Bulb Contact Alignment - J1-21 Contact Aligns with Pin Position No.6 ± 30 degrees	

MAXIMUM RATINGS (Absolute Maximum Values)

Final Anode Voltage ²	17,600 Volts dc
Grid No.4 Voltage (Focusing Electrode) ³	-550 to ± 1,100 Volts dc
Grid No.2 Voltage	550 Volts dc
Grid No.1 Voltage	
Negative Bias Value	155 volts dc
Negative Peak Value	220 Volts dc
Positive Peak Value	2 volts
Positive Bias Value	0 Volts

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MAXIMUM RATINGS (Absolute Maximum Values) cont'd

Peak Heater-Cathode Voltage:

Heater Negative with Respect to Cathode	
After Warm-up Period Not to Exceed 15 Seconds	450 Volts dc
After Equipment Warm-up Period	200 Volts dc
Heater Positive with Respect to Cathode	200 volts dc

TYPICAL OPERATING CONDITIONS

Anode Voltage	14,000 Volts dc
Grid No.4 Voltage for Focus	-48 to \neq 264 Volts dc
Grid No.2 Voltage	300 Volts dc
Grid No.1 Voltage Required for Cutoff ⁴	-35 to -72 Volts dc
Field Strength of PM Ion Trap Magnet ⁵	35 Gaussess

CIRCUIT VALUES

Grid No.1 Circuit Resistance	1.5 Max.Megohms
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NOTES

1. External conductive coating must be grounded.
2. Grid No.3, Grid No.5 and the Collector are connected internally and are referred to herein as "Final Anode".
3. The focus electrode may be modulated to improve overall focus
4. Visual extinction of focused raster.
5. For typical PM ion trap magnet with field strength tolerance of \neq 3 gaussess.

WARNING:

X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated at voltage in excess of 16,000 volts.

