

TUNG-SOL**CATHODE RAY**

THE 21CDP4 AND 21CDP4A ARE DIRECT VIEW PICTURE TUBES DESIGNED FOR TELEVISION APPLICATIONS. THE TUBES ARE IDENTICAL EXCEPT FOR THE ALUMINIZED SCREEN ON THE 21CDP4A. THEIR COMMON FEATURES INCLUDE:

MAGNETIC DEFLECTION	ELECTROSTATIC FOCUS
UNIPOENTIAL CATHODE	GRAY FILTER FACEPLATE
EXTERNAL CONDUCTIVE COATING	EXTERNAL SINGLE FIELD ION TRAP
RECTANGULAR GLASS CONSTRUCTION	19 1/16" X 15 1/16" RASTER SIZE

ELECTRICAL DATA

FOCUSING METHOD		ELECTROSTATIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.):		
HORIZONTAL	85	DEGREES
DIAGONAL	90	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):		
CATHODE TO ALL OTHER ELECTRODES	5	$\mu\mu\text{f}$
GRID #1 TO ALL OTHER ELECTRODES	6	$\mu\mu\text{f}$
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	2500	$\mu\mu\text{f}$
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	2000	$\mu\mu\text{f}$

OPTICAL DATA

PHOSPHOR NUMBER	SULFIDE TYPE	F-4
FLUORESCENT COLOR		WHITE
PHOSPHORESCENT COLOR		WHITE
PERSISTENCE	SHORT TO MEDIUM	
FACEPLATE TRANSMISSION AT CENTER (APPROX.):	74	PERCENT

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.45 $\pm$ 5%	AMP.
MAXIMUM DC ANODE VOLTAGE	22 000	VOLTS
MAXIMUM DC GRID #4 VOLTAGE	-550 TO +1100	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	550	VOLTS
MAXIMUM GRID #1 VOLTAGE:		
DC NEGATIVE-BIAS VALUE	155	VOLTS
DC POSITIVE-BIAS VALUE	0	VOLTS
POSITIVE-PEAK VALUE	2	VOLTS
MAXIMUM DC PEAK HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE		
DURING WARM-UP PERIOD NOT TO EXCEED 15 SECONDS	450	VOLTS
AFTER EQUIPMENT WARM-UP PERIOD	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	200	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEG OHMS
HEATER WARM-UP TIME (APPROX.) *	11.0	SECONDS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE	16 000	VOLTS
DC GRID #4 VOLTAGE	-64 TO +352	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^A	-28 TO -72	VOLTS
DC ION TRAP MAGNET STANDARD COIL #117 (APPROX.)	30	MA.
DC ION TRAP MAGNET RATED STRENGTH	33	GAUSES

^A VISUAL EXTINCTION OF FOCUSED RASTER.

* HEATER WARM-UP TIME IS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TERMINALS TO INCREASE TO 5.0 VOLTS IN THE JETEC TEST CIRCUIT, WITH $E=25$ VOLTS AND SERIES $R=42$ OHMS.

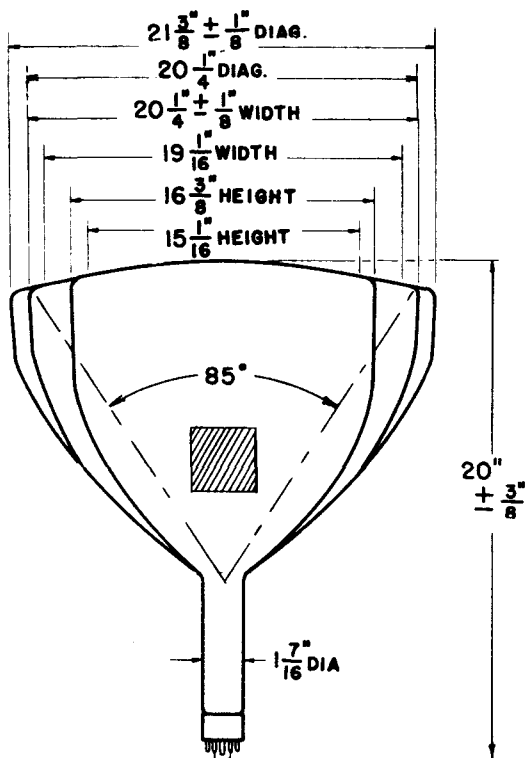
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TUNG-SOL

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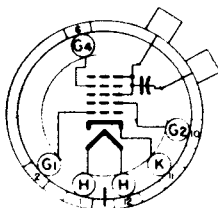
MECHANICAL DATA

OVERALL LENGTH	20 $\pm$ 3/8	INCHES
GREATEST DIMENSIONS OF BULB:		
DIAGONAL	21 $\frac{3}{8}$ $\pm$ 1/8	INCHES
WIDTH	20 $\frac{1}{4}$ $\pm$ 1/8	INCHES
HEIGHT	16 $\frac{3}{8}$ $\pm$ 1/8	INCHES
MIN. USEFUL SCREEN DIMENSIONS:		
DIAGONAL	20 $\frac{1}{4}$	INCHES
WIDTH	19 $\frac{1}{16}$	INCHES
HEIGHT	15 $\frac{1}{16}$	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J1-21
BASE	SMALL SHELL CUODECAL 6 PIN	B6-63
BASING		12L
BULB CONTACT ALIGNMENT		

J1-21 CONTACT ALIGNS WITH PIN POSITION #6 $\pm$ 30 DEGREES

PIN CONNECTIONS

PIN 1 - HEATER
 PIN 2 - GRID #1
 PIN 5 - GRID #4
 PIN 10 - GRID #2
 PIN 11 - CATHODE



BOTTOM VIEW

PIN 12 - HEATER
 ANODE CAP:
 GRID NO. 3
 GRID NO. 5