

TUNG-SOL

CATHODE RAY

THE 21AWP4 IS A DIRECT-VIEW PICTURE TUBE DESIGNED FOR USE IN TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

UNIPOENTIAL CATHODE	ALUMINIZED SCREEN
GREY FILTER FACEPLATE	SPHERICAL FACEPLATE
MAGNETIC FOCUS AND DEFLECTION	EXTERNAL CONDUCTIVE COATING
RECTANGULAR GLASS CONSTRUCTION	EXTERNAL SINGLE FIELD ION TRAP
19 1/8" X 15" RASTER SIZE	

ELECTRICAL DATA

FOCUSING METHOD		MAGNETIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.):		
HORIZONTAL	67	DEGREES
VERTICAL	53	DEGREES
DIAGONAL	72	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):		
CATHODE TO ALL OTHER ELECTRODES	5	μf
GRID #1 TO ALL OTHER ELECTRODES	6	μf
EXTERNAL CONDUCTIVE COATING TO ANODE (MAX.) ^A	1 500	μf
EXTERNAL CONDUCTIVE COATING TO ANODE (MIN.) ^A	1 200	μf

OPTICAL DATA

PHOSPHOR NUMBER	ALUMINIZED	P-4
FLUORESCENT COLOR		WHITE
PHOSPHORESCENT COLOR		WHITE
PERSISTENCE		MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)	71	PERCENT

RATINGS

DESIGN CENTER VALUES

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC ANODE VOLTAGE	18 000	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	500	VOLTS
MAXIMUM GRID #1 VOLTAGE:		
DC NEGATIVE-BIAS VALUE	125	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 45 SECONDS	410	VOLTS
AFTER EQUIPMENT WARM-UP PERIOD	180	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	180	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEG OHMS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE	16 000	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^B	-28 TO -72	VOLTS
DC FOCUSING COIL CURRENT (APPROX.) ^C	108 ± 20%	MA.
ION TRAP MAGNET STRENGTH (APPROX.)	35	GAUSSES

^A EXTERNAL CONDUCTIVE COATING MUST BE GROUNDED.

^B VISUAL EXTINCTION OF FOCUSED RASTER.

^C FOR STANDARD FOCUS COIL #209, OR EQUIVALENT, WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO-SIGNAL VOLTAGE ADJUSTED TO PRODUCE A HIGHLIGHT BRIGHTNESS OF 20 FOOT LAMBERTS ON A 19 1/8" BY 15" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SHALL BE 3 INCHES.

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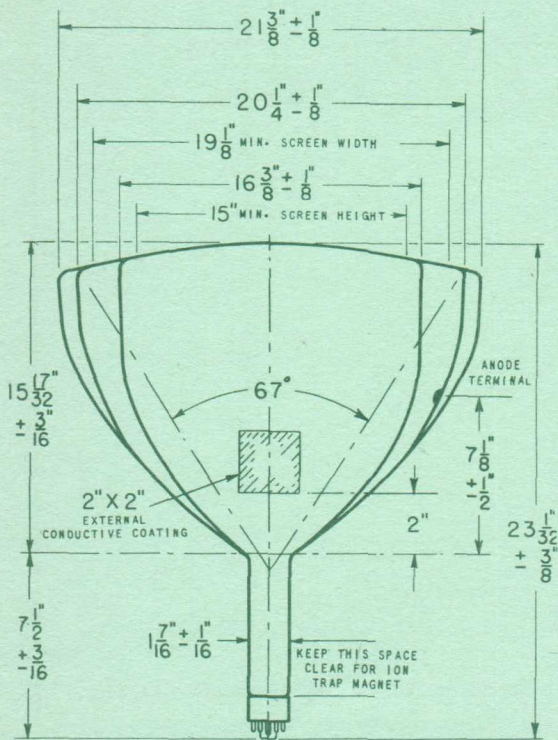
→ INDICATES A CHANGE.

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MECHANICAL DATA

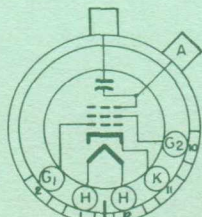
OVERALL LENGTH	23 $\frac{1}{32} \pm \frac{3}{8}$	INCHES
GREATEST DIMENSIONS OF BULB:		
DIAGONAL	21 $\frac{3}{8} \pm \frac{1}{8}$	INCHES
WIDTH	20 $\frac{1}{4} \pm \frac{1}{8}$	INCHES
HEIGHT	16 $\frac{3}{8} \pm \frac{1}{8}$	INCHES
MINIMUM USEFUL SCREEN DIMENSIONS:		
WIDTH	19 $\frac{1}{8}$	INCHES
HEIGHT	15	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J4-21
BASE	SMALL SHELL DUODECAL 5 PIN	B5-57
BASING		12N
BULB CONTACT ALIGNMENT		
J4-21 CONTACT ALIGNS WITH PIN POSITION #6 ± 30 DEGREES		



PIN CONNECTIONS

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

PIN 12 - HEATER
 ANODE CAP:
 GRID #3



BOTTOM VIEW

→ INDICATES A CHANGE.