TUNG-SOL

CATHODE RAY

THE 24DP4 AND 24DP4A ARE DIRECT-VIEW PICTURE TUBES DESIGNED FOR USE IN TELEVISION APPLICATIONS. THEY ARE IDENTICAL *EXCEPT* THAT THE 24DP4A HAS AN ALUMINIZED SCREEN. THEIR COMMON FEATURES INCLUDE:

ELECTROSTATIC FOCUS — **MAGNETIC DEFLECTION**
SPHERICAL FACEPLATE — **UNIPOTENTIAL CATHODE**
GREY FILTER FACEPLATE — **EXTERNAL CONDUCTIVE COATING**
RECTANGULAR GLASS CONSTRUCTION — **EXTERNAL SINGLE FIELD ION TRAP**
21 7/8" X 16 7/8" RASTER SIZE

ELECTRICAL DATA

FOCUSING METHOD		ELECTROSTATIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.):		
HORIZONTAL	85	DEGREES
VERTICAL	68	DEGREES
DIAGONAL	90	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):		
CATHODE TO ALL OTHER ELECTRODES	5	μμf
GRID #1 TO ALL OTHER ELECTRODES	6	μμf
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	750	μμf
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	500	μμf

OPTICAL DATA

PHOSPHOR NUMBER		NO. 4
FLUORESCENT COLOR		WHITE
PHOSPHORESCENT COLOR		WHITE
PERSISTENCE		MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)	73	PERCENT

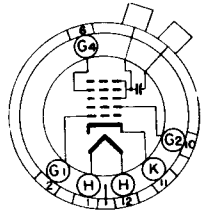
MECHANICAL DATA

OVERALL LENGTH	21 1/8 ± 3/8	INCHES
GREATEST DIMENSIONS OF BULB:		
DIAGONAL	24	INCHES
WIDTH	22 11/16	INCHES
HEIGHT	18 7/16 ± 1/8	INCHES
MINIMUM USEFUL SCREEN DIMENSIONS:		
WIDTH	21 7/8	INCHES
HEIGHT	16 7/8	INCHES
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 #6 ± 30 DEGREES

PIN CONNECTIONS

PIN 1 – HEATER
PIN 2 – GRID NO. 1
PIN 6 – GRID NO. 4
PIN 10 – GRID NO. 2



BOTTOM VIEW

PIN 11 – CATHODE
PIN 12 – HEATER
ANODE CAP:
GRID NO. 3

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RATINGS
DESIGN CENTER VALUES

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC ANODE, GRID #3 VOLTAGE	20 000	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 GRID #4 VOLTAGE	-500 TO +1000	VOLTS
MAXIMUM DC PEAK HEATER-CATHODE VOLTAGE:[A]		
HEATER NEGATIVE WITH RESPECT TO CATHODE		
DURING WARM-UP PERIOD NOT TO EXCEED 15 SECONDS	410	VOLTS
AFTER EQUIPMENT WARM-UP PERIOD	180	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	180	VOLTS

[A] CATHODE SHOULD BE RETURNED TO ONE SIDE OR TO THE MID-TAP OF THE HEATER TRANSFORMER WINDING.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE, GRID #3 VOLTAGE	18 000	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE[B]	-33 TO -77	VOLTS
DC GRID #4 VOLTAGE	-72 TO +400	VOLTS
DC ION TRAP CURRENT STANDARD COIL #111 (APPROX.)	100 ± 50%	MA.

[B] VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

CIRCUIT VALUES

MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEGOHMS

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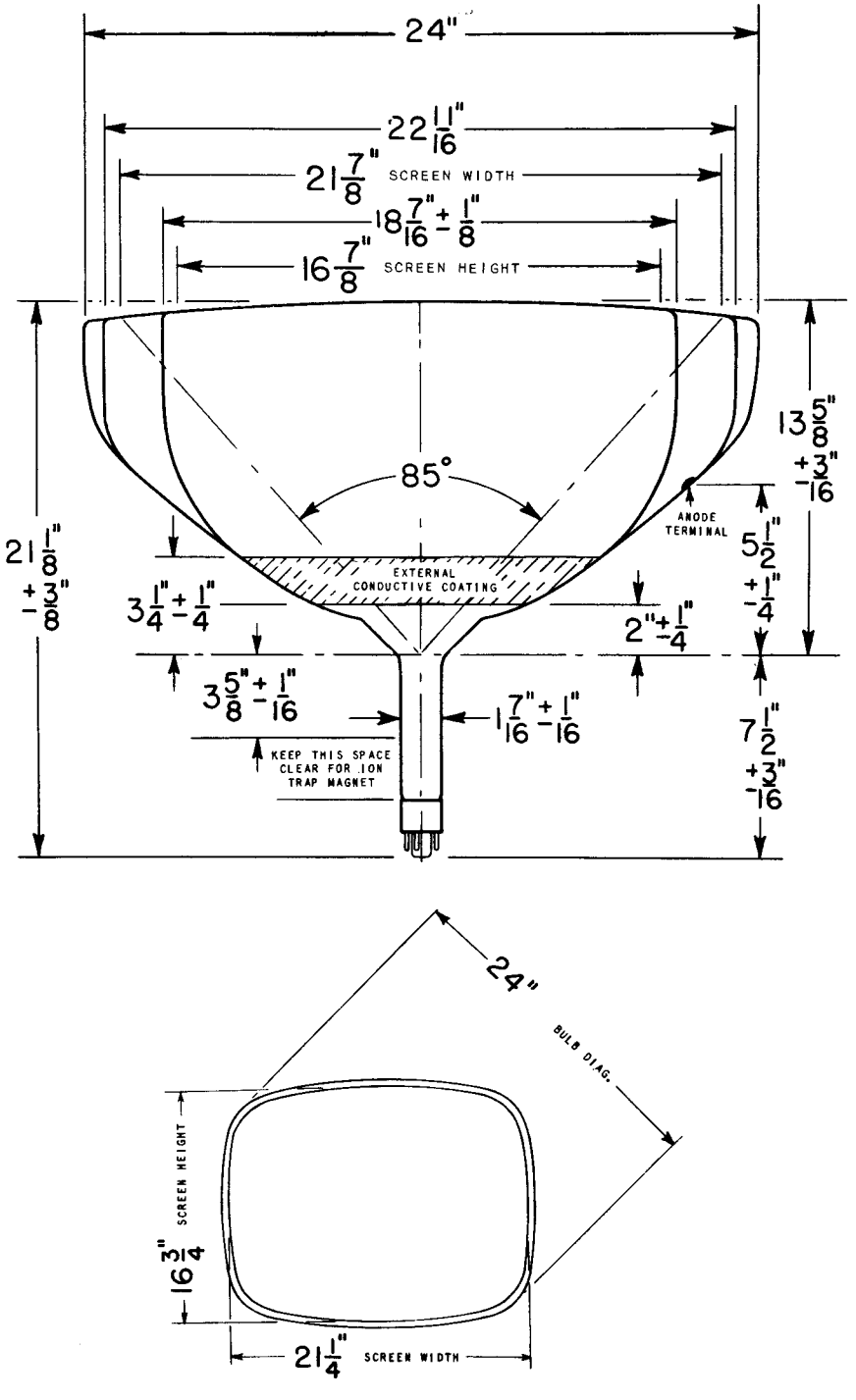

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