TUNG-SOL

CATHODE RAY

THE 17FP4 AND 17FP4A ARE DIRECT VIEW PICTURE TUBES DESIGNED FOR USE IN TELEVISION APPLICATIONS. THEY ARE IDENTICAL WITH THE FOLLOWING *EXCEPTION:*

17FP4 - PARTIAL EXTERNAL COATING *17FP4A - COMPLETE EXTERNAL COATING*

THEIR COMMON FEATURES INCLUDE:

ELECTROSTATIC FOCUS **MAGNETIC DEFLECTION**
UNIPOTENTIAL CATHODE **GREY FILTER FACEPLATE**
RECTANGULAR GLASS CONSTRUCTION **EXTERNAL SINGLE FIELD ION TRAP**
14 1/4" X 11 1/8" RASTER SIZE

ELECTRICAL DATA

FOCUSING METHOD			ELECTROSTATIC
DEFLECTING METHOD			MAGNETIC
DEFLECTION ANGLE (APPROX.)			
HORIZONTAL		65	DEGREES
DIAGONAL		70	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.)			
CATHODE TO ALL OTHER ELECTRODES		5	μμf
GRID #1 TO ALL OTHER ELECTRODES		6	μμf
	17FP4A	17FP4	
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	2000	750	μμf
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	750	500	μμf

OPTICAL DATA

PHOSPHOR NUMBER		NO. 4
FLUORESCENT COLOR		WHITE
PHOSPHORESCENT COLOR		WHITE
PERSISTENCE		MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)	66	PERCENT

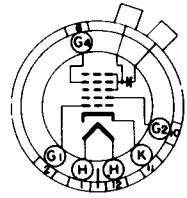
MECHANICAL DATA

OVERALL LENGTH	19 1/4 ± 3/8	INCHES
GREATEST DIMENSIONS OF BULB		
DIAGONAL	16 5/8 ± 1/8	INCHES
WIDTH	15 3/8 ± 1/8	INCHES
HEIGHT	12 1/4 ± 1/8	INCHES
MINIMUM USEFUL SCREEN DIMENSIONS		
DIAGONAL	15 1/2	INCHES
WIDTH	14 1/4	INCHES
HEIGHT	11 1/8	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
PIN 11 – CATHODE



BOTTOM VIEW

PIN 12 – HEATER
ANODE CAP:
GRID #3,
GRID #5,
COLLECTOR

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RATINGS
DESIGN CENTER VALUES

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC GRID #3, GRID #5, COLLECTOR VOLTAGE[A]	18 000	VOLTS
MAXIMUM DC ANODE #1 VOLTAGE	5 000	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	410	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[B]		
HEATER NEGATIVE WITH RESPECT TO CATHODE		
DURING WARM-UP PERIOD NOT TO EXCEED 15 SECONDS	410	VOLTS
AFTER EQUIPMENT WARM-UP PERIOD	150	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	150	VOLTS

[A] IF THIS TUBE IS OPERATED AT VOLTAGE IN EXCESS OF 16,000 VOLTS, X-RAY RADIATION SHIELDING MAY BE NECESSARY TO AVERT POSSIBLE DANGER OF PERSONAL INJURY FROM PROLONGED EXPOSURE AT CLOSE RANGE.

[B] CATHODE SHOULD BE RETURNED TO ONE SIDE OR TO THE MIDTAP OF THE HEATER TRANSFORMER WINDING.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC GRID #3, GRID #5, COLLECTOR VOLTAGE	12 000	VOLTS
DC ANODE #1 VOLTAGE (FOCUSING ELECTRODE)[C]	2300 TO 3550	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE[D]	-33 TO -77	VOLTS
DC ION TRAP CURRENT STANDARD COIL #111 (APPROX.)	75 ± 50%	MA.
ION TRAP FIELD INTENSITY (APPROX.)	35	GAUSSES

[C] WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO-SIGNAL VOLTAGE ADJUSTED TO GIVE AN ANODE CURRENT OF 100 MICROAMPERES ON A 10 3/4" X 14 1/4" PICTURE SIZE.

[D] VISUAL EXTINCTION OF UNDEFLECTED FOCUSING SPOT.

CIRCUIT VALUES

MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEGOHMS

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