

TUNG-SOL

CATHODE RAY

THE 17QP4 AND 17QP4A ARE DIRECT VIEW PICTURE TUBES INTENDED FOR USE IN TELEVISION APPLICATIONS. THEY ARE IDENTICAL *EXCEPT* FOR THE ALUMINIZED SCREEN ON THE 17QP4A.

GREY FILTER FACEPLATE
EXTERNAL CONDUCTIVE COATING
MAGNETIC FOCUS AND DEFLECTION
RECTANGULAR GLASS CONSTRUCTION

UNIPOTENTIAL CATHODE
CYLINDRICAL FACEPLATE
10 3/4" X 14 1/4" RASTER SIZE
EXTERNAL SINGLE FIELD ION TRAP

ELECTRICAL DATA

FOCUSING METHOD		MAGNETIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.)		
HORIZONTAL	65	DEGREES
VERTICAL	50	DEGREES
DIAGONAL	70	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.)		
CATHODE TO ALL OTHER ELECTRODES	5	μf
GRID #1 TO ALL OTHER ELECTRODES	6.5	μf
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	1 500	μf
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	750	μf

OPTICAL DATA

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

RATINGS

DESIGN CENTER VALUES

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC ANODE, GRID #3 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 15 SECONDS	410	VOLTS
AFTER EQUIPMENT WARM-UP PERIOD	150	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	150	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEG OHMS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE, GRID #3 VOLTAGE	14 000 ←	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^A	-28 TO -72 ←	VOLTS
DC FOCUSING COIL CURRENT (APPROX.) ^B	95 ←	MA.
ION TRAP FIELD INTENSITY STANDARD COIL #111 (APPROX.)	30 ←	GAUSSSES

^A VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

^B FOR STANDARD FOCUS COIL #109, OR EQUIVALENT, WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO SIGNAL VOLTAGE ADJUSTED TO PRODUCE A HIGHLIGHT BRIGHTNESS OF 30 FOOT LAMBERTS ON A 14 1/4" BY 10 3/4" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SHALL BE 3.0 INCHES.

→ INDICATES A CHANGE.

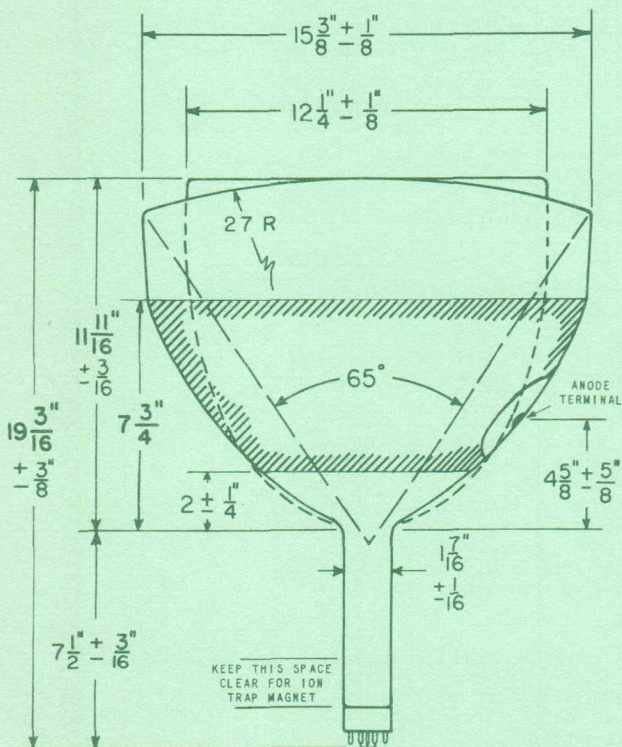
CONTINUED ON FOLLOWING PAGE

TUNG-SOL

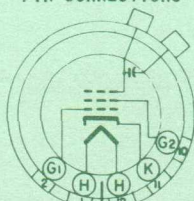
CONTINUED FROM PRECEDING PAGE

MECHANICAL DATA

OVERALL LENGTH	19 3/16 ± 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 5/16	INCHES
WIDTH	14 1/4	INCHES
HEIGHT	10 3/4	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J1-21
BASE	SMALL SHELL DUODECAL 5 PIN	B5-57
BASING		12N
BULB CONTACT ALIGNMENT		
J1-21 CONTACT ALIGNS WITH VACANT PIN POSITION #6 ± 30 DEGREES		



PIN CONNECTIONS



PIN 1 - HEATER
PIN 2 - GRID NO. 1
PIN 10 - GRID NO. 2
PIN 11 - CATHODE

PIN 12 - HEATER
ANODE CAP:
GRID NO. 3

BOTTOM VIEW