

TUNG-SOL

HIGH VACUUM CATHODE-RAY TUBE

ELECTROSTATIC DEFLECTION AND FOCUSING

NO. 1 PHOSPHOR
GREEN FLUORESCENT SCREEN
MEDIUM PERSISTENCE

HEATER
6.3 VOLTS ($\pm 10\%$) 0.6 AMPERE
AC OR DC

COATED UNIPOTENTIAL CATHODE

GLASS BULB

SMALL SHELL MAGNAL 11 PIN BASE

RATINGS*

MAXIMUM ANODE NO. 2 VOLTAGE (HIGH VOLTAGE ELECTRODE)	1100	VOLTS
MAXIMUM ANODE NO. 1 VOLTAGE (FOCUSING ELECTRODE)	550	VOLTS
GRID VOLTAGE (CONTROL ELECTRODE)	NEVER	POSITIVE
MAXIMUM PEAK VOLTAGE BETWEEN ANODE NO. 2 AND ANY DEFLECTOR	660	VOLTS
MAXIMUM DC HEATER CATHODE POTENTIAL ^A	125	VOLTS
MAXIMUM GRID CIRCUIT RESISTANCE	1.5	MEG OHMS
MAXIMUM IMPEDANCE OF ANY DEFLECTOR CIRCUIT AT HEATER SUPPLY FREQUENCY	1.0	MEG OHM

*MAXIMUM RATINGS ARE ABSOLUTE VALUES

DIRECT INTERELECTRODE CAPACITANCES (APPROX.)

CONTROL ELECTRODE TO ALL OTHER ELECTRODES	8.0	$\mu\mu\text{f}$
CATHODE TO ALL OTHER ELECTRODES	5.5	$\mu\mu\text{f}$
D1 TO D2	0.6	$\mu\mu\text{f}$
D3 TO D4	1.1	$\mu\mu\text{f}$
D1 TO ALL OTHER ELECTRODES	8.5	$\mu\mu\text{f}$
D3 TO ALL OTHER ELECTRODES	9.0	$\mu\mu\text{f}$
D1 TO ALL OTHER ELECTRODES EXCEPT D2	8.0	$\mu\mu\text{f}$
D2 TO ALL OTHER ELECTRODES EXCEPT D1	4.6	$\mu\mu\text{f}$
D3 TO ALL OTHER ELECTRODES EXCEPT D4	7.5	$\mu\mu\text{f}$
D4 TO ALL OTHER ELECTRODES EXCEPT D3	3.6	$\mu\mu\text{f}$

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

ANODE NO. 2 VOLTAGE ^B	500	1000	VOLTS
ANODE NO. 1 VOLTAGE FOR FOCUS AT 75% OF GRID VOLTAGE CUT-OFF (APPROX.) ^C	125	250	VOLTS
GRID VOLTAGE FOR CUT-OFF ^D	-30 ^E	-60 ^E	VOLTS
DEFLECTION SENSITIVITY: ^F			
D1 AND D2	0.220	0.110	MM/VOLT DC
D3 AND D4	0.260	0.130	MM/VOLT DC
DEFLECTION FACTOR: ^F			
D1 AND D2	115	230	VOLTS DC/IN
D3 AND D4	98	196	VOLTS DC/IN

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SPOT POSITION AND TEST CONDITIONS

THE UNDEFLECTED FOCUSED SPOT FALLS WITHIN A 10 MM. SQUARE CENTERED ON THE TUBE FACE.

TEST CONDITIONS ARE:

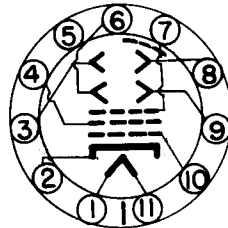
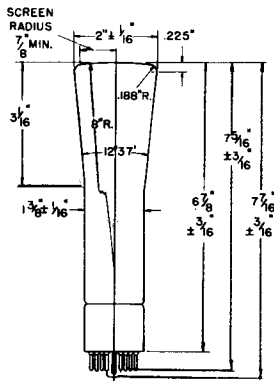
ANODE NO. 2 VOLTAGE	1000	VOLTS
ANODE NO. 1 VOLTAGE	ADJUSTED FOR FOCUS	
GRID VOLTAGE	NEAR CUT-OFF	
DEFLECTOR RESISTORS (CONNECTED TO ANODE NO. 2)	1 MEGOHM EACH	

NOTE: SHIELD TUBE FROM ALL STRAY FIELDS.

- A WHEN THE HEATER IS OPERATED AT A NEGATIVE POTENTIAL WITH RESPECT TO THE CATHODE THEN THE CATHODE RETURN SHOULD BE MADE AT THE CENTER TAP OF THE FILAMENT TRANSFORMER.
- B USE OF LESS THAN 500 VOLTS RESULTS IN DECREASED BRILLIANCE.
- C CERTAIN TUBES MAY REQUIRE ADJUSTMENT OF $\pm 20\%$ TO -45% WITH GRID VOLTAGE BETWEEN ZERO AND CUT-OFF.
- D THE VISUAL EXTINCTION OF A FOCUSED SPOT.
- E THE GRID SUPPLY SHOULD BE VARIABLE TO $\pm 50\%$.
- F VALUES SUBJECT TO VARIATION OF $\pm 20\%$.

DEFLECTOR LOCATIONS:

D1 AND D2	NEAREST TO SCREEN
D3 AND D4	NEAREST TO BASE
D1	SAME SIDE OF TUBE AS PIN NO. 4
D3	SAME SIDE AS PIN NO. 1



BOTTOM VIEW

1. HEATER
2. CATHODE
3. DEFLECTOR NO. 1 (D1)
4. ANODE NO. 1
5. NO CONNECTION
6. DEFLECTOR NO. 4 (D4)
7. ANODE NO. 2
8. DEFLECTOR NO. 2 (D2)
9. DEFLECTOR NO. 3 (D3)
10. GRID
11. HEATER