TUNG-SOL

HIGH VACUUM CATHODE-RAY TUBE

ELECTROSTATIC DEFLECTION AND FOCUSING

NO. 1 PHOSPHOR
GREEN FLUORESCENT SCREEN
MEDIUM PERSISTENCE

HEATER
6.3 VOLTS 0.6 AMPERE
AC OR DC

COATED UNIPOTENTIAL CATHODE

GLASS BULB

MEDIUM SHELL DIHEPTAL 12 PIN BASE

RATINGS*

MAXIMUM ANODE NO. 2 VOLTAGE (HIGH-VOLTAGE ELECTRODE)	2200	VOLTS
MAXIMUM ANODE NO. 1 VOLTAGE (FOCUSING ELECTRODE)	1100	VOLTS
GRID VOLTAGE (CONTROL ELECTRODE)	NEVER POSITIVE	
MAXIMUM PEAK VOLTAGE BETWEEN ANODE NO. 2 AND ANY DEFLECTOR	550	VOLTS
MAXIMUM DC HEATER CATHODE POTENTIAL[A]	125	VOLTS
MAXIMUM GRID CIRCUIT RESISTANCE	1.5	MEGOHMS
MAXIMUM IMPEDANCE OF ANY DEFLECTOR CIRCUIT AT HEATER SUPPLY FREQUENCY	1.0	MEGOHM

*MAXIMUM RATINGS ARE ABSOLUTE VALUES

DIRECT INTERELECTRODE CAPACITANCES (APPROX.)

GRID TO ALL OTHER ELECTRODES	8.0	μμf
CATHODE TO ALL OTHER ELECTRODES	7.0	μμf
D1 TO D2	2.0	μμf
D3 TO D4	2.0	μμf
D1 TO ALL OTHER ELECTRODES	9.0	μμf
D3 TO ALL OTHER ELECTRODES	7.0	μμf
D1 TO ALL OTHER ELECTRODES EXCEPT D2	7.0	μμf
D2 TO ALL OTHER ELECTRODES EXCEPT D1	7.0	μμf
D3 TO ALL OTHER ELECTRODES EXCEPT D4	5.0	μμf
D4 TO ALL OTHER ELECTRODES EXCEPT D3	6.0	μμf

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

ANODE NO. 2 VOLTAGE[B]	1500	2000	VOLTS
ANODE NO. 1 VOLTAGE FOR FOCUS AT 75% OF GRID VOLTAGE CUT-OFF[C]	430	575	VOLTS
GRID VOLTAGE FOR CUT-OFF[D]	-45[E]	-60[E]	VOLTS
DEFLECTION SENSITIVITY:[F]			
D1 AND D2	0.153	0.115	MM/VOLT DC
D3 AND D4	0.207	0.155	MM/VOLT DC
DEFLECTION FACTOR:[F]			
D1 AND D2	166	221	VOLTS DC/IN
D3 AND D4	123	164	VOLTS DC/IN

PRINTED IN U. S. A.

PLATE
1397
MARCH 15
1944

CONTINUED NEXT PAGE

CONTINUED FROM PRECEDING PAGE

SPOT POSITION AND TEST CONDITIONS

THE UNDEFLECTED FOCUSED SPOT FALLS WITHIN A 15 MM. SQUARE CENTERED ON THE TUBE FACE.

TEST CONDITIONS ARE:

ANODE NO. 2 VOLTAGE	2000 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 1500 VOLTS RESULTS IN DECREASED BRILLIANCE.

[C] CERTAIN TUBES MAY REQUIRE ADJUSTMENT OF +20% TO −35% WITH GRID VOLTAGE BETWEEN ZERO AND CUT-OFF.

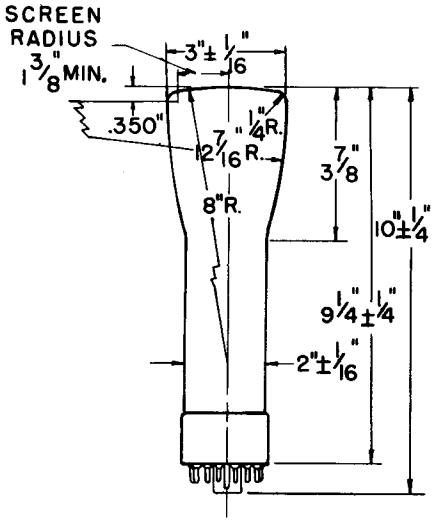
[D] THE VISUAL EXTINCTION OF A FOCUSED SPOT.

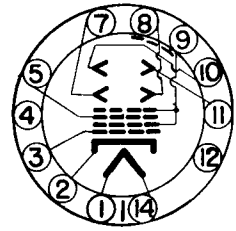
[E] THE GRID SUPPLY SHOULD BE VARIABLE TO ± 50%.

[F] VALUES SUBJECT TO VARIATION OF ± 20%.

DEFLECTOR LOCATIONS:

D1 AND D2	NEAREST TO SCREEN
D3 AND D4	NEAREST TO BASE
D1	SAME SIDE OF TUBE AS PIN NO. 5
D3	SAME SIDE AS PIN NO. 2





BOTTOM VIEW

1. HEATER
2. CATHODE
3. GRID NO. 1
4. INTERNAL CONNECTION (DO NOT USE)
5. ANODE NO. 1
7. DEFLECTOR NO. 3 (D3)
8. DEFLECTOR NO. 4 (D4)
9. GRID NO. 2
   ANODE NO. 2
10. DEFLECTOR NO. 2 (D2)
11. DEFLECTOR NO. 1 (D1)
12. NO CONNECTION
14. HEATER

PLATE 1398
MARCH 15 1944