

EITEL-McCULLOUGH, INC.

SAN BRUNO, CALIFORNIA

2000T

(3-2000A3)

MEDIUM-MU TRIODE

MODULATOR
OSCILLATOR
AMPLIFIER

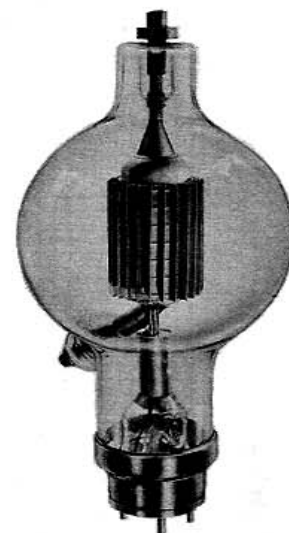
GENERAL CHARACTERISTICS

ELECTRICAL

Filament: Thoriated tungsten	
Voltage - - - - -	10.0 volts
Current - - - - -	25.0 amperes
Amplification Factor (Average) - - - - -	23
Direct Interelectrode Capacitances (Average)	
Grid-Plate - - - - -	8.5 $\mu\mu\text{f}$
Grid-Filament - - - - -	12.7 $\mu\mu\text{f}$
Plate-Filament - - - - -	1.7 $\mu\mu\text{f}$
Transconductance ($I_b=1.75$ amp., $E_b=6000$, $e_c=-95$)	11000 μmhos
Frequency for Maximum Ratings - - - - -	40 mc

MECHANICAL

Base - Special 4 pin, (Fits Johnson No. 214 Socket, or equal) No. 5006B	
Basing - - - - -	RMA type 4BD
Maximum Overall Dimensions:	
Length - - - - -	17.75 inches
Diameter - - - - -	8.125 inches
Net weight - - - - -	3.5 pounds
Shipping weight (Average) - - - - -	8.5 pounds



AUDIO FREQUENCY POWER AMPLIFIER AND MODULATOR

Class B

	TYPICAL OPERATION—2 TUBES			MAX. RATING
D-C Plate Voltage - - - - -	5000	6000	7000	10000 volts
Max.-Signal D-C Plate Current, per tube* - - - - -	•	•	•	1.75 amps.
Plate Dissipation, per tube* - - - - -	•	•	•	2000 watts
D-C Grid Voltage (approx.) - - - - -	-180	-230	-290	volts
Peak A-F Grid Input Voltage - - - - -	940	1050	1180	volts
Zero-Signal D-C Plate Current - - - - -	.480	.400	.350	amps.
Max.-Signal D-C Plate Current - - - - -	2.0	1.88	1.86	amps.
Max.-Signal Driving Power (approx.) - - - - -	50	60	75	watts
Effective Load, Plate-to-Plate - - - - -	4900	6650	8500	ohms
Max.-Signal Plate Power Output - - - - -	6000	7500	9000	watts

*Averaged over any sinusoidal audio frequency cycle.

RADIO FREQUENCY POWER AMPLIFIER AND OSCILLATOR

Class-C *Telegraphy

(Key down conditions without modulation)

	TYPICAL OPERATION—1 TUBE				MAX. RATING
D-C Plate Voltage - - - - -	5000	6000	7000	8000	10000 volts
D-C Plate Current - - - - -	1.35	1.35	1.15	1.25	1.75 amps.
D-C Grid Current - - - - -	175	165	120	200	250 ma.
D-C Grid Voltage - - - - -	-350	-500	-600	-750	volts
Plate Power Output - - - - -	4670	6000	6000	8000	watts
Plate Input - - - - -	6670	8000	8000	10000	watts
Plate Dissipation - - - - -	2000	2000	2000	2000	2000 watts
Peak R. F. Grid Input Voltage, (approx.) - - - - -	900	1050	1060	1275	volts
Driving Power, (approx.) - - - - -	140	160	115	235	watts

*The above figures show actual measured tube performance, and do not allow for variations in circuit losses.

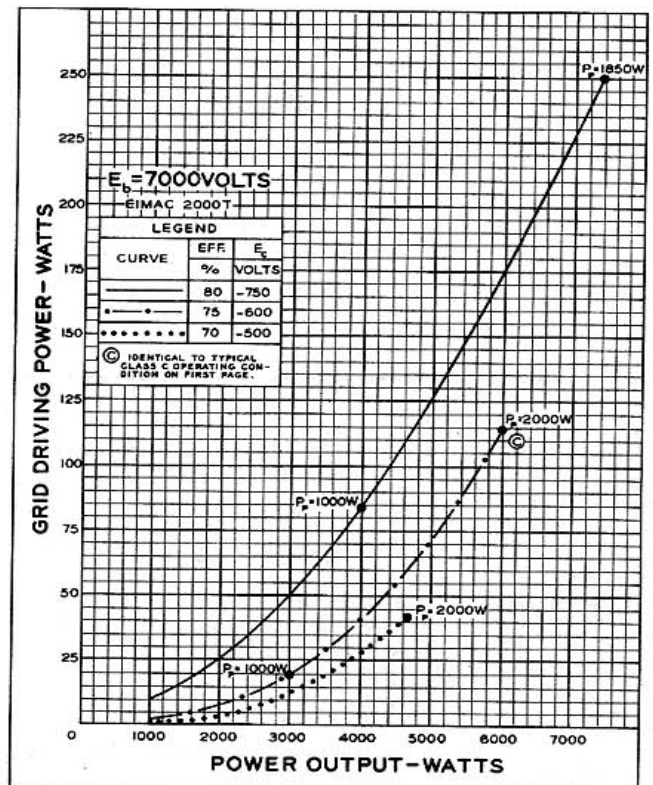
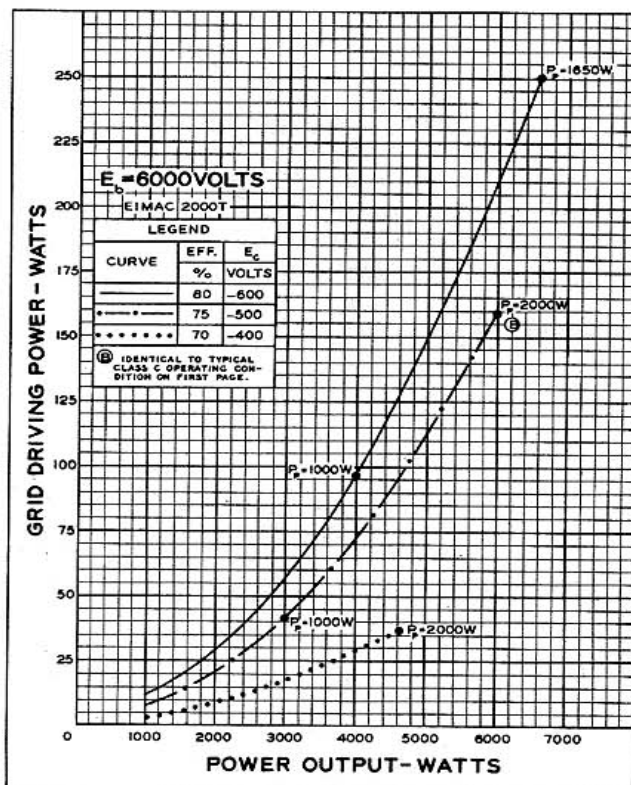
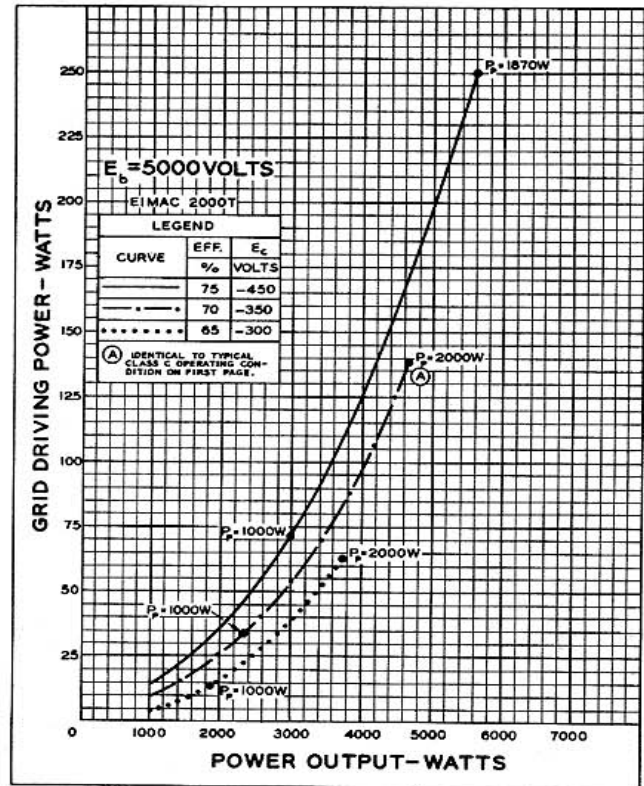
(Effective 6-15-44)

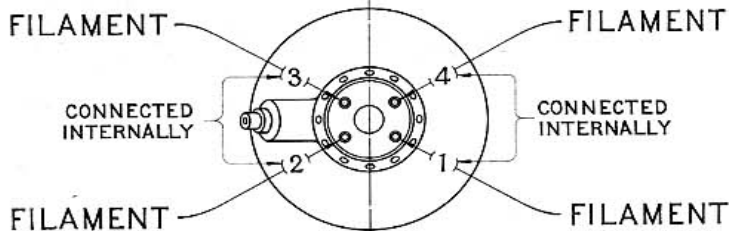
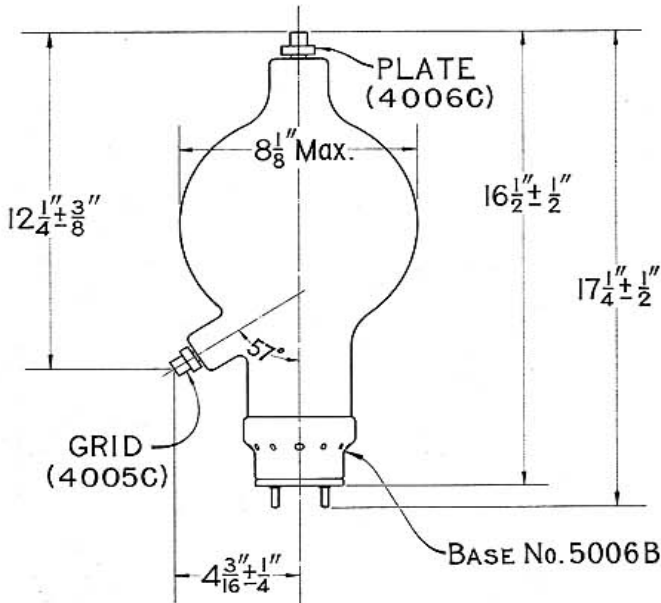


DRIVING POWER vs. POWER OUTPUT

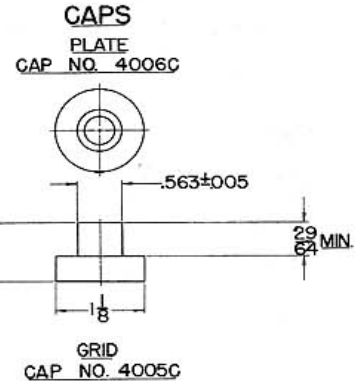
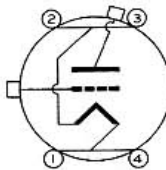
The three charts on this page show the relationship of plate efficiency, power output and grid driving power at plate voltages of 5000, 6000, and 7000 volts. These charts show combined grid and bias losses only. The driving power and power output figures do not include circuit losses. The plate dissipation in watts is indicated by P_p .

Points A, B, and C are identical to the typical Class C operating conditions shown on the first page under 5000, 6000, and 7000 volts respectively.

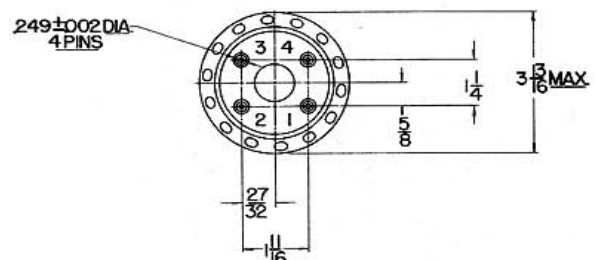
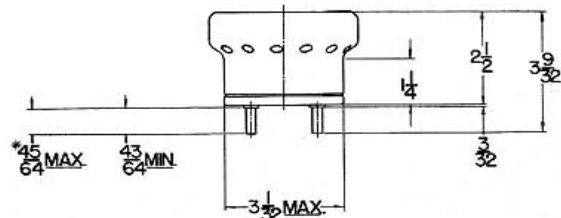




4BD



BASE NO. 5006B



*ON FINISHED TUBE ADD .060 FOR SOLDER

AIR COOLING

Forced air cooling on the seals of the Eimac 1000T, 1500T, and 2000T is recommended when tubes are operated under maximum conditions. We suggest the Roots Connorsville blower unit No. 22. This blower when driven by a 1/4 H. P. motor at 1160 r.p.m. will deliver 13 cubic feet of air per minute at 1 pound pressure.

Each tube seal requires approximately 2 cubic feet per minute, therefore, one of these No. 22 blowers should handle any two of the above tubes.

We would suggest the outlet manifold, which is 1 inch in diameter, be kept to the shortest possible length—under 8 feet. It is also suggested 3/8 inch O.D. copper tubing be used from the outlet manifold to feed air to the various seals. It will be necessary to use an insulating type of tubing to actually connect to the tubes themselves. This tubing should have an I.D. of 5/16 inch.

Roots Connorsville's plant is in Connorsville, Indiana, with offices in most of the large cities.

Bulbs must be cooled with air equivalent to that supplied by standard 8" electric fan 12" from bulb.