



TYPE 845

A-F POWER AMPLIFIER, CLASS A, AB₁ MODULATOR

ENGINEERING INFORMATION

GENERAL RATINGS

Number of Electrodes	3
Filament Voltage	10 volts
Current	3.25 amperes
Type	Thoriated Tungsten
Average Characteristic Values Calculated at:	
Eb = 1000, Ec = -147, Ef = 10 D-C	
Plate Current	0.075 amperes
Amplification Factor	5
Plate Resistance	1800 ohms
Mutual Conductance	3000 micromhos
Average Direct Interelectrode Capacities:	
Grid to Plate	13.5 uuf
Grid to Filament	6.0 uuf
Plate to Filament	6.5 uuf
Maximum Overall Dimensions:	
Length	7 7/8 inches
Diameter	2 5/16 inches
Bulb	T-18
Base	Jumbo 4-Large Pin
Type of Cooling	Air
Net Weight	8 oz.

MAXIMUM RATINGS

Maximum D-C Plate Voltage	1250 volts
Maximum D-C Plate Current	95 ma.
Maximum Plate Dissipation	100 watts

A-F POWER AMPLIFIER AND MODULATOR—CLASS A

Maximum D-C Plate Voltage	1250 volts
Maximum Plate Dissipation	100 watts

Typical Operation:

Filament Voltage	10	10	10	a-c volts
D-C Plate Voltage	750	1000	1250	volts
Grid Voltage	-98	-155	-209	approx. volts
Peak Grid Swing	93	150	204	volts
D-C Plate Current	95	65	52	ma.
Mutual Conductance	3100	2800	2500	umhos
Plate Resistance	1700	1900	2100	ohms
Load Resistance	3400	9000	16000	ohms
U. P. O. (5% 2nd harmonic)	15	21	24	watts

INSTALLATION

The base of the UNITED 845 is designed for mounting in a standard "50 watt" socket of the four-pin, bayonet type. The tube should always be mounted vertically with ample air space provided for ventilation.

The filament of the 845 should be operated at the rated value of 10 volts. Operation at other than the rated value may result in loss of filament emission and short life.

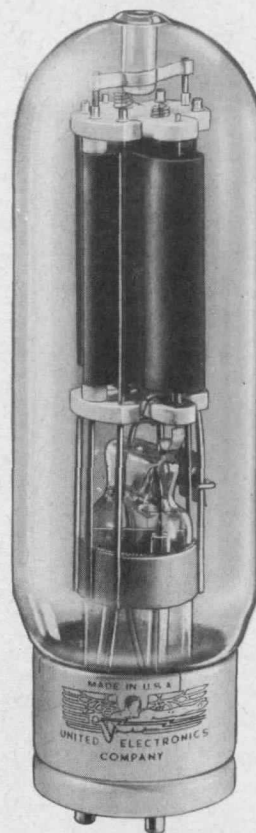
Transformer or impedance coupling devices are recommended. If it is desired to use resistance coupling, the grid resistor should not exceed 0.5 megohm when self-bias is used. With fixed bias the maximum allowable resistance for the grid resistor is 0.1 megohm.

GRAPHITE ANODE

A specially processed graphite anode is used in this tube type because of several specific advantages over metals such as tantalum, molybdenum, and nickel. The radiating area of graphite is approximately twice the projected anode area because of its surface porosity and it will dissipate at least four times more heat than metal.

Graphite, being infusible will not warp or twist. The exact form of graphite is maintained under all temperatures; hence constant inter-element relationships and uniform characteristics result. The inherent advantages of graphite over metal are of primary importance in designing tubes of this type for long and satisfactory service.

All ratings given are for continuous service. Higher ratings are permissible for intermittent operation. Additional data will be furnished upon request.



REPLACES TYPE 945

UNITED type 845 is a popular choice for all radio transmitting and motion picture sound installations.

