RCA-864

Amplifier

(Low Microphonic Design)

RCA-864 is a high-vacuum, three-electrode tube of the general-purpose type. The tube is designed with a coated filament and is intended for use under conditions where freedom from microphonic disturbance is required. It is applicable as a detector, amplifier, or oscillator in battery-operated equipment which may be subject to either impact or continuous vibration.

CHARACTERISTICS

Filament Volts (d-c)	1.1	Grid-Plate Capacitance	5.3 μμf
Filament Amperes	0.25	Grid-Filament Capacitance	3.3 μμf
		Plate-Filament Capacitance	2.1 μμf

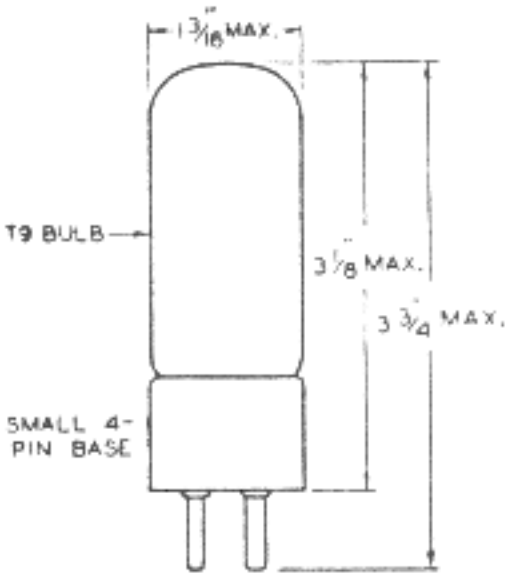
As A-F Amplifier—Class A

D-C Plate Voltage	90	135 *max.*	Volts
D-C Grid Voltage	−4.5	−9	Volts
D-C Plate Current	2.9	3.5	Milliamperes
Plate Resistance	13500	12700	Ohms
Amplification Factor	8.2	8.2	
Transconductance	610	645	Micromhos

INSTALLATION AND APPLICATION

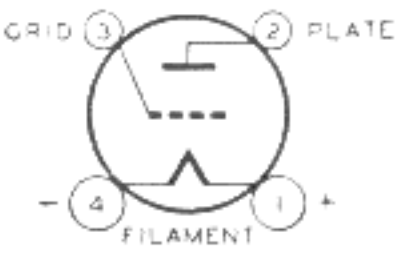
The base pins of the 864 fit the standard 4-contact socket which may be mounted to hold the tube in any position. Except in high-gain circuits, cushioning of the socket will generally be unnecessary.

The coated filament is designed for d-c operation. The filament supply may be from dry-cells or from a single lead storage cell. The filaments of 864's should preferably be operated in parallel although it is permissible to operate several tubes in series provided the rated filament current of 0.25 ampere is maintained.



As an amplifier in transformer-coupled circuits, the 864 should be operated as shown under CHARACTERISTICS. As an amplifier in resistance-coupled circuits, considerable leeway of plate-supply voltage is permissible provided the plate-coupling resistor and grid bias are chosen so as to limit the average voltage at the plate to the maximum value of 135 volts. The average voltage is that existing when no signal is impressed. A grid resistor of not more than 2 megohms is recommended.

Top view of Socket Connections



AVERAGE PLATE CHARACTERISTICS