

# —Standard Valves—

4211-D Valve  
-E Valve

## 4211-D AND 4211-E VALVE

TRIODE.

For replacement purposes only.

The 4211-E valve is similar to 4211-D valve but has small chokes (approximately one microhenry) connected in series with the grid and anode leads to prevent spurious oscillations at ultra high frequencies. These valves have been replaced by the 4242-A valve.

### SPECIFICATION.

#### Cathode.

Oxide coated filament.  
Constant voltage type.

#### Base.

Large 4-pin bayonet.

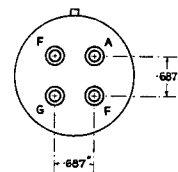
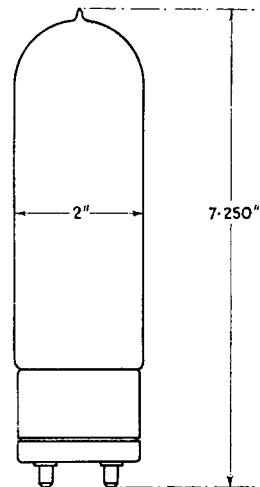
#### Dimensions.

Overall length  $7\frac{1}{4}"$  (18.4 cms.)  
Bulb diameter 2" (5.1 cms.)  
Net weight 0.4 lbs. (180 gms.)

#### Constants.

Filament voltage 10 volts  
Nominal filament current 3 amps.  
\*Impedance 3,000 ohms  
\*Amplification factor 12  
\*Mutual conductance 4 mA. per volt  
Grid-anode capacity 8.9  $\mu\mu\text{F}$ .  
Anode-filament capacity 4.5  $\mu\mu\text{F}$ .  
Grid-filament capacity 6.9  $\mu\mu\text{F}$ .

\* at anode current of 65 mA.



### LIMITING CONDITIONS FOR SAFE OPERATION.

Maximum direct anode voltage 1,000 volts  
Maximum direct anode current 0.200 amps.  
Maximum anode dissipation 65 watts  
Maximum direct grid current 0.045 amps.

Note :—This valve should be mounted so that the filament is operated in a vertical plane.

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## TYPICAL OPERATING CONDITIONS.

	Class A AF Amp.
Direct anode voltage	900 volts
Grid bias	—45 volts
Direct anode current	0.055 amps.
Anode dissipation	45 watts
Load impedance	10,000 ohms
Undistorted output	8.1 watts
% Harmonics	4.5

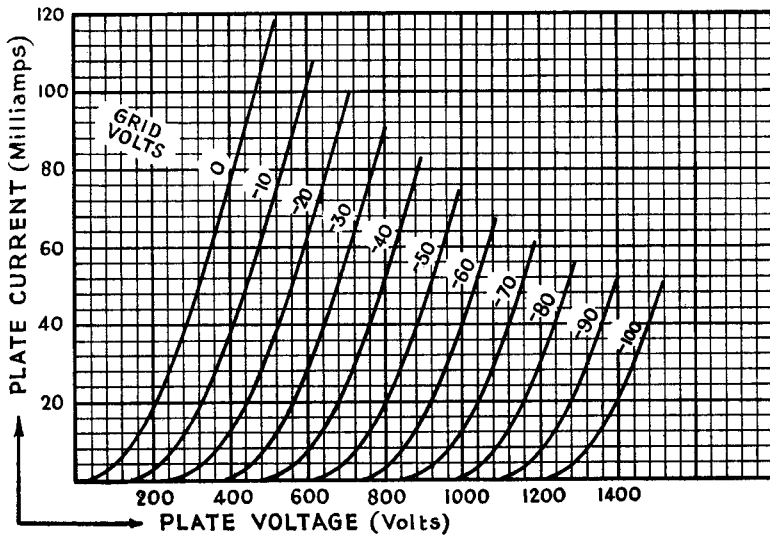
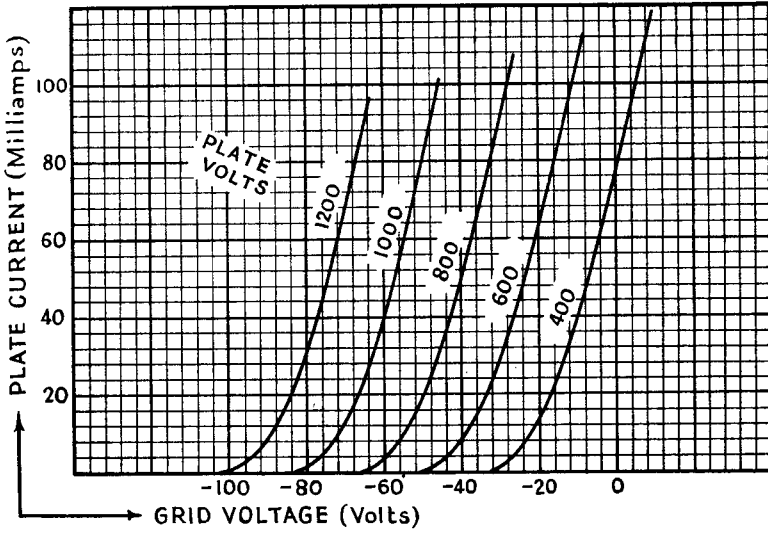
## RADIO FREQUENCY OPERATION.

	Class B Telephony	Class C Telephony	Class C Telegraphy
	Modulated Carrier applied to grid	Subject to anode modulation	Unmodulated
Direct anode voltage	1,000	750	1,000 volts
Direct anode current	0.075	0.100	0.135 amps.
Grid bias	—75	—120	—200 to —250 volts
Anode dissipation	50	25	45 watts
Carrier output	25	50	90 watts

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These curves are taken with direct filament heating, grid and anode voltages being referred to negative end of filament.



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