



**RCA Radiotron**

**Cunningham  
RADIO TUBES**

RCA-1-v

C-1-v

### HALF-WAVE RECTIFIER

The 1-v is a half-wave, high-vacuum rectifier tube employing a heater cathode. It is intended for use in radio equipment of either the "universal" or the automobile type designed for its characteristics. The low voltage drop of this tube makes it uniquely adapted to such service. The 1-v is interchangeable with Type 1.

#### CHARACTERISTICS

HEATER VOLTAGE (A. C. or D. C.).....	6.3	Volts
HEATER CURRENT.....	0.3	Ampere
A-C PLATE VOLTAGE (RMS).....	350 max.	Volts
D-C OUTPUT CURRENT.....	50 max.	Milliamperes
BULB (For dimensions, see Page 151, Fig. 6).....		ST-12
BASE (For socket connections, see Page 150, Fig. 22).....		Small 4-Pin

#### INSTALLATION

The **base** pins of the 1-v fit the standard four-contact socket which may be mounted to hold the tube in any position.

**Heater** operation is similar to that for Type 6A7.

#### APPLICATION

The **filter** may be either of the condenser-input or the choke-input type provided the recommended maximum plate voltage and output current ratings given under CHARACTERISTICS are not exceeded. The d-c potential difference between heater and cathode should never exceed 500 volts.

If the condenser-input type of filter is used, consideration must be given to the instantaneous peak value of the a-c input voltage which, for a sinusoidal wave, is about 1.4 times the RMS value as measured with an a-c voltmeter. It is important, therefore, that the filter condensers (especially the input condenser) have a sufficiently high breakdown rating to withstand this instantaneous peak value. Particular attention must be given to this point when the wave-shape input to the plates of the rectifier tube is non-sinusoidal.

When the input-choke method is used, the available d-c output voltage will be somewhat lower than with the input-condenser method for a given a-c plate voltage. However, improved regulation together with lower peak current will be obtained.

