

RADIOTRON

Model UX-874

Voltage Regulator Tube

RATING

Rated Voltage - - - - 90 volts D. C.
Maximum Current (continuous) - 50 milliamperes D. C.

GENERAL

Radiotron Model UX-874 is a voltage regulator tube having two elements, an anode and a cathode, and containing a low pressure mixture of gases. Current conduction is by ionization of these gases.

The unique and useful property of this tube is that for any current up to the maximum rating, the voltage drop across the tube remains approximately constant at about 90 volts.

The cylinder must always be operated as the cathode or negative electrode, the wire inside the cylinder as the anode or positive electrode. (See Fig. 1.)

Sufficient resistance must always be used in series with this Radiotron UX-874 to limit the current through it to 50 milliamperes (.05 ampere) when no current is being drawn by the radio receiver from the "Plate Current Supply Unit."

To start the glow discharge in Radiotron UX-874 a D. C. voltage of approximately 125 volts is required.

USE

The most common use is in connection with devices for supplying plate voltage for radio sets from an A. C. line. The usual form of filter or "smoothing-out" circuit in such a device is shown in Fig. 2. The diagram also shows the location of the Radiotron UX-874 in the circuit.

Sufficient resistance should be included in the portion of the circuit between the two condensers to limit the current through the Radiotron UX-874 to 50 milliamperes (.05 ampere) when the receiving set is disconnected or the Radiotron filaments of the receiving set are not lighted.

The plate current drawn by the set results in lowering by a like amount the current through the Radiotron UX-874. The plate voltage will be maintained approximately constant at 90 volts until the current drawn by the set has reduced the current through the Radiotron UX-874 to a low value.

BASE CONNECTION

The wire anode (positive) is connected to the base contact pin which on a three electrode Radiotron, for receiving purposes, would be the grid terminal. The diametrically opposite pin is the cylindrical cathode (negative) terminal. The other two pins are connected together under the base, and this connection may be used in power supply devices to complete the circuit to the supply device so that the supply device cannot be operated without the Radiotron UX-874 Voltage Regulator tube. The operation of such supply devices without the Regulator tube might damage the radio receiver or its Radiotrons.

LARGE STANDARD RADIOTRON BASE

Radiotron UX-874 is equipped with the new large standard Radiotron base (large "UX" base), and the connections to the contact pins are shown in the diagram at the bottom of this sheet.