

#93  
6H5

# CHARACTERISTIC DATA SHEET

## RAYTHEON RADIO TUBE

### CATHODE RAY TUNING INDICATOR

(Uni-Potential Cathode Type)

#### HEATER RATING

|                |     |         |
|----------------|-----|---------|
| Heater Voltage | 6.3 | volts   |
| Heater Current | 0.3 | Amperes |

#### TUNING INDICATOR

(Operating Conditions and Characteristics)

|                                    |      |       |       |        |
|------------------------------------|------|-------|-------|--------|
| Plate Supply                       | 100  | 200   | 250   | volts  |
| Series Triode Plate Resistor       | .5   | 1.0   | 1.0   | megohm |
| Target                             | 100  | 200   | 250   | volts  |
| Target Current (approx.)           | 1.5  | 3.5   | 4.5   | m.a.   |
| Grid Voltage for Zero Shadow Angle | -8.0 | -10.5 | -22.0 | volts  |
| Grid Voltage for 90° Shadow Angle  | 0    | 0     | 0     | volts  |

The 6H5 is a high-vacuum tube designed to visually indicate the effect of changing the control grid bias. The shaded pattern produced on the fluorescent target varies through an angle from 90° to approximately 0° as the control voltage is varied. The voltage on the shadow control electrode, the extension of the triode plate between the cathode and target, controls the extent of the shaded area. The voltage of the shadow control electrode is determined by the voltage of the control grid of the triode connected as a de amplifier. Thus the control grid voltage determines the extent of the shadow. An increase of control grid bias increases the shadow control voltage and decreases the shadow while a decrease of bias reduces the shadow. In practical use the control grid voltage is obtained from a suitable point in the AVC network.

The 6H5 is similar to the type 6G5 except that the current to the target is controlled by a grid tied to the cathode within the tube instead of by omission saturation as in the 6G5. The addition of this grid causes a fixed 90° shadow to appear on the target opposite the controlled shadow and care should be used in installing the tube that this shadow is not mistaken for the controlled shadow.

Basing and dimensions of 6H5 are the same as 6G5.