6AB5

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# CATHODE RAY TUNING INDICATOR (Uni-Potential Cathode Type)

Bulb-T-9

Base-Standard 6-pin

## DIMENSIONS

Maximum	Overall Length			/16'
Maximum	Diameter	1	3/	/16"

## BASING - R.M.A. Numbering

Pin 1-Heater Pin 2-Plate Pin 3-Grid Pin 4-Target Pin 5-Cathode Pin 6-Heater

#### RATINGS

Heater Voltage	6.3	volts
Heater Current	0.15	amp
Maximum Plate Supply Voltage	135	volts
Maximum Target Voltage	135	volts

#### TUNING INDICATOR

Target Voltage	135	volts
Plate Supply Voltage	135	volts
Plate Resistor	0.25	megohm
Target Current (Approximate)	4.5	ma
Plate Current (Zero Bias )	0.5	ma
Grid Bias for Shadow Angle = $0^{\circ}$	-12	volts
Grid Bias for Shadow Angle = 900	0	volts

The 6AB5 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 dc amplifier. Thus the control grid voltage determines the extent of the shadow. An increase of control grid bias thus increases the shadow control voltage and decreases the shadow while a decrease of bias increases the shadow. In practical use the control grid voltage is obtained from a suitable point in the AVC network. The target current is controlled by a grid in the target section connected to the cathode within the tube.

The 6AB5 is identical with the 6N5 in all respects except bulb size. The 6AB5 is in a T-9 bulb and the 6N5 is in an ST-12 bulb.

RAYTHEON ENGINEERING SERVICE

April 1, 1937.

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