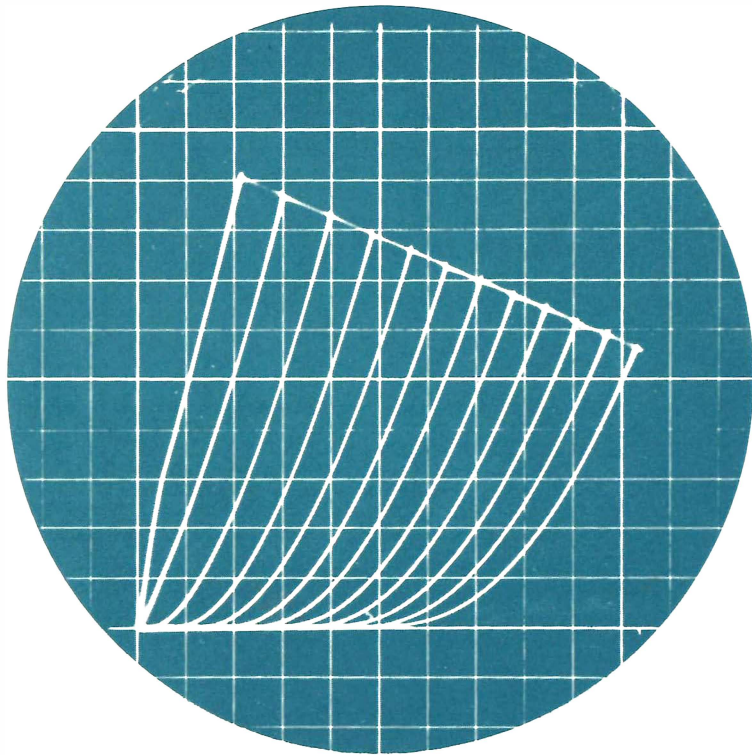


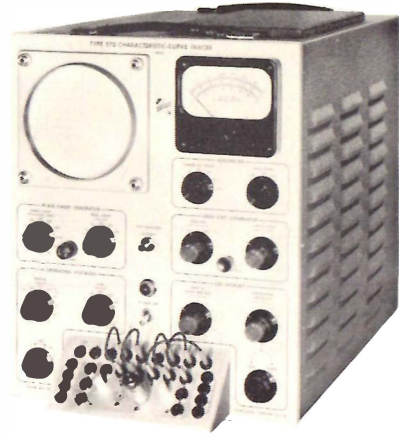
**NEW!**



**CHARACTERISTIC-CURVE  
TRACER**

***Type 570***

# Preliminary Information for the Tektronix Type 570 CHARACTERISTIC-CURVE TRACER



The Type 570 CHARACTERISTIC-CURVE TRACER enables the user to observe and measure the plate and grid characteristics of most receiving type tubes. The curves may also be compared with pre-selected tube characteristics that have been reproduced upon a cathode-ray tube mask. A tube under test may be directly compared with a standard tube, either by manual or automatic switching. This instrument can be used in quality control applications for production testing, sample testing, etc. The design engineer will find the instrument invaluable in his circuit design work. The versatility of the Type 570 enables the engineer to investigate tube conditions not available in tube manuals. Some of the tentative specifications are as follows:

## **CALIBRATED CRT**

The crt is calibrated for both horizontal and vertical axes—horizontal-axis range is 0.5 to 50 volts/div in 7 steps. Vertical-axis range is 0.02 to 50 ma/div in 11 steps. The high sensitivity of this instrument allows the user to examine characteristics under extremely low current and voltage conditions.

## **VARIABLE PLATE-SWEEP GENERATOR**

The plate-sweep generator supplies a 120-cycle rectified sine-wave voltage to the plate of the tube under test. The plate voltage is continuously variable from zero to +500 volts peak. Eleven different plate loads, ranging from 500 ohms to 1 megohm, can be switched in series with the plate supply.

## **WIDE RANGE GRID-STEP GENERATOR**

A low-impedance negative-going stair-step waveform which is applied to the grid of the tube under test is generated by the grid-step generator. The amplitude of each step can be adjusted to any one of these voltages—0.1, 0.2, 0.5, 1,

2, 5, and 10 volts. One to 12 curves per family at a 120 or 240-step/sec rate are available. A push-button control, when pressed, shorts the grid of the tube under test to its cathode, displaying only the zero-bias curve. With this reference point, the family of curves can be adjusted to start at a positive grid voltage, zero, or at a negative grid voltage. The wide range of the grid-step voltages available makes possible testing low-signal devices like transistors as well as low- $\mu$  power triodes.

## **VARIABLE VOLTAGES**

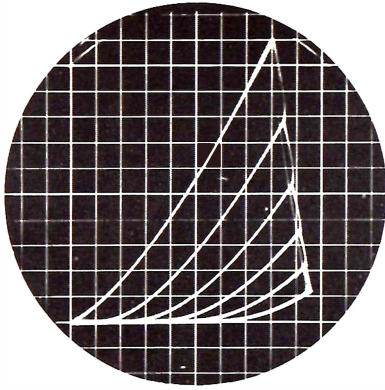
Variable voltages, consisting of heater, +dc, and -dc are measured on a built-in voltmeter. Fixed heater voltages are available for most receiving type tubes. The selected heater voltage can be increased or decreased by as much as 20% for simulating the effects of changing line voltage. The +dc voltage is continuously variable from zero to 350 volts, in 5 ranges. The -dc voltage range is zero to 100 volts.

## **ADAPTER PLATES**

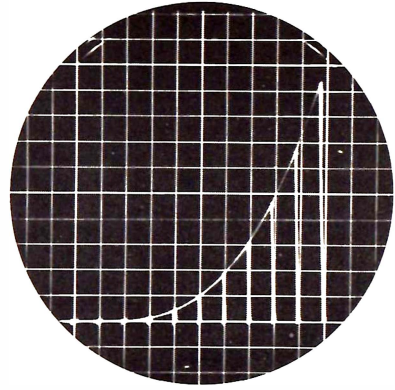
A variety of tube-socket-adapter plates with pin-jacks and patch-cords from the plate to the main unit complete the versatility of this instrument.

## **MISCELLANEOUS**

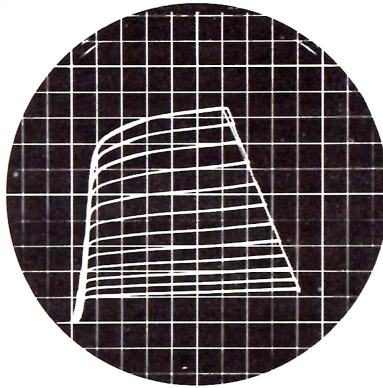
Electronic voltage regulation. All parts easily accessible for maintenance. Edge-illuminated 10 x 10 division graticule. 5ABP type crt. Light weight construction. Dimensions: 16½" high, 13" wide, 24½" deep. Either 50 or 60 cycles, 200 watts.



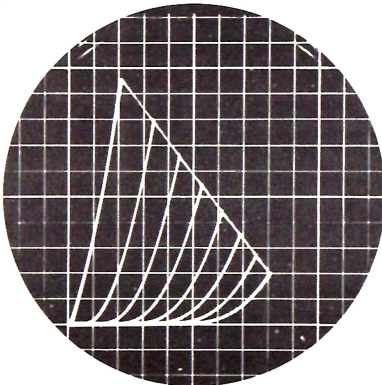
A family of 6 curves showing the plate characteristics for 1/2 12AU7 triode under the following conditions: peak plate volts, 500v; plate load, 500 ohms; vertical deflection sensitivity, 10 ma/div; horizontal deflection sensitivity, 50 v/div; grid voltage step, 5v, starting at zero bias.



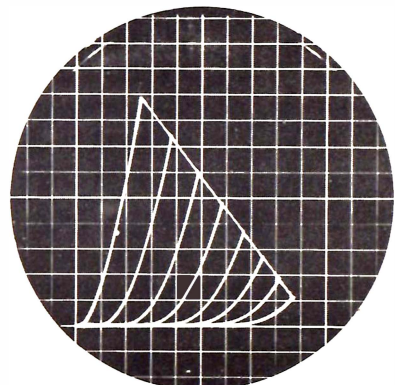
The grid characteristics for the same 1/2 12AU7 triode under these conditions: peak plate volts, 500v; plate load, 1k; vertical sensitivity, 10 ma/div; horizontal sensitivity, 5 v/div; grid voltage step, 5v, to zero bias.



The plate characteristics of the pentode section of a 6U8 tube with these conditions: peak plate volts, 500v; screen voltage, 200v; plate load, 20k; vertical sensitivity, 1 ma/div; horizontal sensitivity, 50 v/div; grid voltage step, 0.2v, starting at +0.2 volts bias.



The triode section of the same 6U8 with: peak plate volts, 500v; plate load, 20k; vertical sensitivity, 20 ma/div; horizontal sensitivity, 50 v/div; grid voltage step, 0.2v, starting at zero bias.



The pentode section of the same 6U8 tube is now triode connected with the same conditions as the triode section. Note the similarity of characteristics.

## Type 570 Characteristic-Curve Tracer—\$925

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