

3 APPLICATIONS

3.1 VOLTAGE INDICATION. With the unmarked end connected to an oscillator and the end marked "R" connected to a load (though an arbitrary length of lossless 50-ohm line) the Voltmeter Rectifier and the associated line simulate a generator with an equivalent open-circuit voltage equal to the indicated voltage and an internal impedance of 50 ohms (resistive). The Type 874-VI Voltage Indicator is recommended as the indicating device.

3.2 SIGNAL GENERATOR. In conjunction with a Type 874-GAL Adjustable Attenuator, the 874-VR/-VRL can be used to convert an oscillator into a signal generator. Figure 4 shows an example of a typical setup. The stub is used to produce a current maximum at the pickup loop in the attenuator, and the adjustable line (could be replaced by a single stub or double-stub transformer) is used as a matching transformer to obtain the maximum oscillator output.

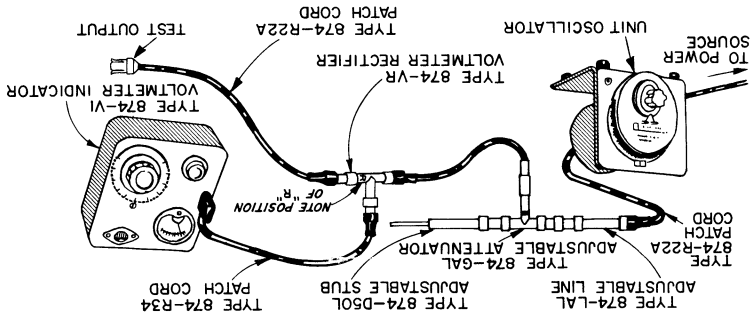


Figure 4. Use of Type 874-VR/-VRL to convert a unit oscillator to a signal generator.

3.3 AUTOMATIC AMPLITUDE CONTROL. The Type 874-VR/-VRL can be used, together with the Type 1263-B Power Supply², (Figure 5), to keep the output of an oscillator constant when the frequency is varied.

1. G. P. McCouch, "A New Look in High-Frequency Oscillators," *General Radio Experimenters*, 37, 8, August, 1963.
 2. W. F. Byers, "Type 1263-B Amplitude-Regulating Power Supply," *General Radio Experimenters*, 35, 9, September, 1961.