A SIMPLE NOISE SOURCE

JOHN A. STARKWEATHER

UNIVERSITY OF CALIFORNIA SCHOOL OF MEDICINE

Audio noise with random characteristics can be useful as a stimulus, as a means of masking other sounds, or as a signal source for electrical or acoustical measurement. For many purposes, this inexpensive unit containing only four parts will be sufficient. Its output approximates a distribution of equal energy per octave over the audio spectrum.

The circuit in Fig. 1 is both a noise source and an amplifier. Portion *A* produces a noise output of approximately 300 microvolts r.m.s., which is sufficient to drive a microphone preamplifier. The additional circuit in *B* may be added, if desired, to provide a signal of approximately 175 millivolts r.m.s., which is sufficient to drive a high-impedance "Tuner" input of an audio amplifier.

Fig. 1. Circuit diagram.