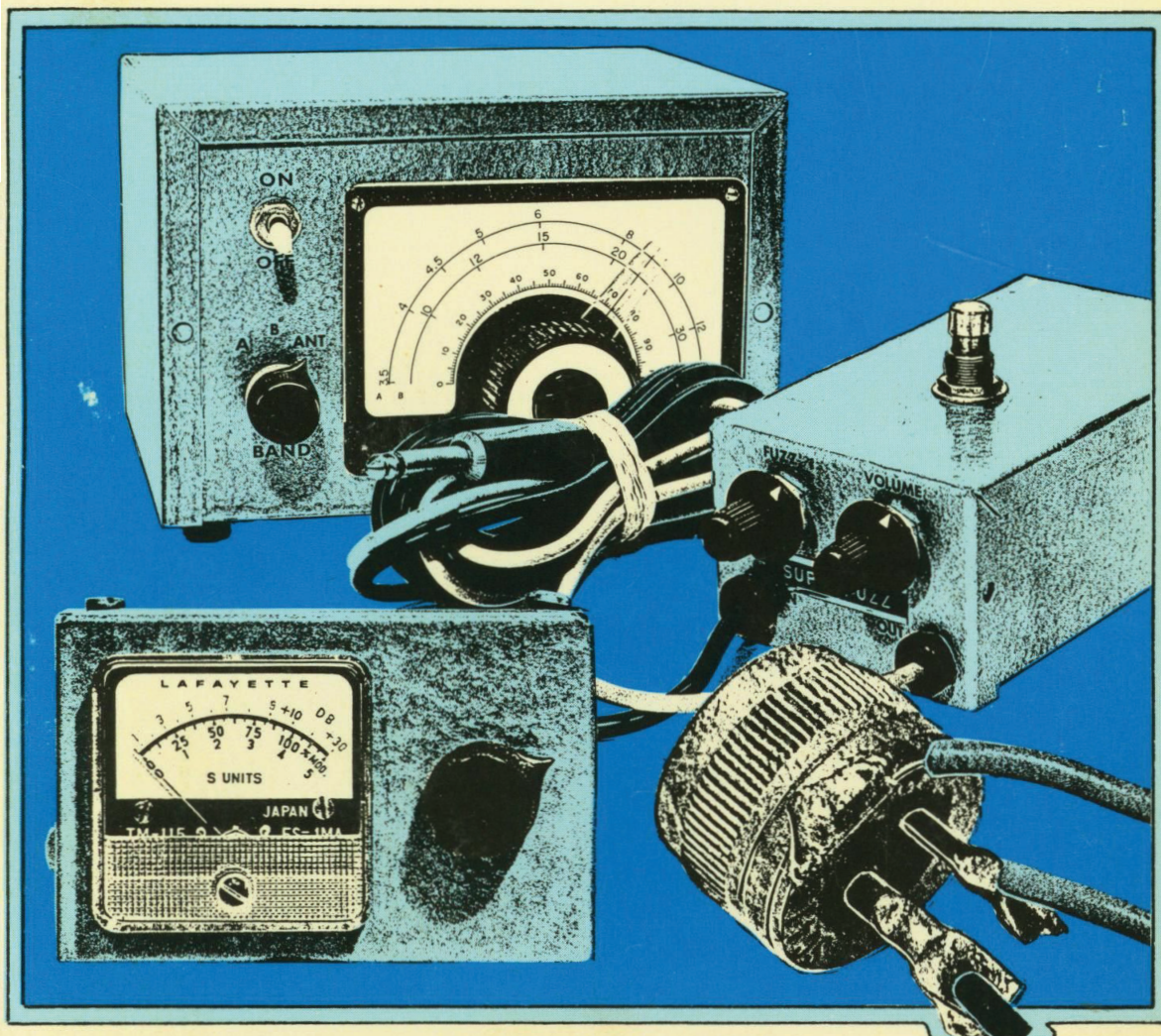


Lafayette

99 ELECTRONIC PROJECTS

Herbert Friedman



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**by
Herbert Friedman**

LAFAYETTE RADIO ELECTRONICS
111 JERICO TURNPIKE, SYOSSET, N.Y. 11791

FIRST EDITION

FIRST PRINTING—1976

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International Standard Book Number: 0-672-22814-9

99 PRECISION FREQUENCY OSCILLATOR

If you need a precision, frequency-controlled signal source for remote triggering of a telephone "snooper" or other selective device, you might try an electromechanical resonator.

The frequency of resonator F1 in the transmitter unit should match the frequency of the reed relays in the receiving unit. A switch will allow several different resonator frequencies to be installed in the transmitter.

PARTS LIST

Item	Description
C1	Capacitor, 0.2- μ F, 10-Vdc (Lafayette 34-82734)
F1	Twintron resonator (H. B. Engineering Corp., 1101 Ripley St., Silver Spring, Md. 20910)
Q1	Darlington amplifier, GE D16P1 or equiv.
R1	Resistor, 4.7-megohms, 1/2-watt (Lafayette 52-31618)
R2	Resistor, 2000-ohm, 1/2-watt (Lafayette 52-30818)
R3	Resistor, 560-ohm, 1/2-watt (Lafayette 52-30677)

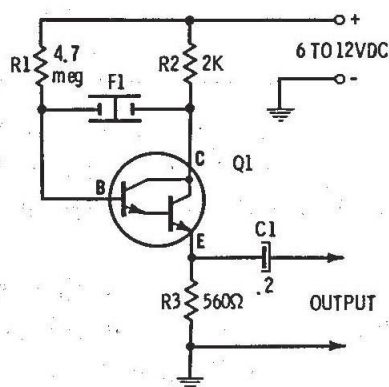


Fig. 99. This precision oscillator uses very few components.

A small amplifier with a speaker connects to the output of a darlington amplifier (Q1). In operation, the resonator passes only the tuned frequency as positive feedback, causing the amplifier to oscillate at the resonant frequency.