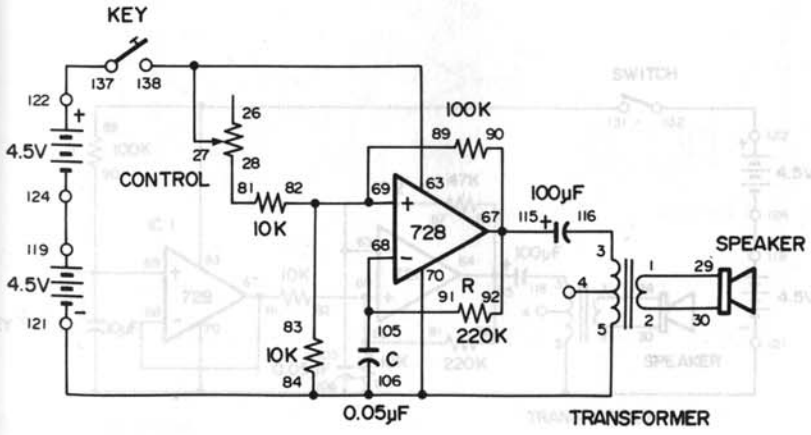
82. OPERATIONAL AMPLIFIER BUZZER

The dual operational amplifier works well as an oscillator. In this project, we build an electric buzzer that makes a continuous beep. You can change the tone of this buzzer by rotating the control.

When you complete the wiring, set the control to the 12 o'clock position and press the key. You hear a continuous beep from the speaker. Now turn the control while pressing the key. The tone of the buzzer changes.

This electronic buzzer only makes a beep, but it can be used for many different purposes as you'll see later.

The oscillating circuit of this buzzer is an astable multivibrator and works as an oscillator producing current that shows a square wave. Changing the control changes the tone of the sound because it changes the frequency of the signal. The frequency is determined by the resistance from the battery input (+) and the resistance from the capacitor that is connected to the (−) battery terminal. Test to find out how the tone changes when you set the value of the capacitor to 0.02μF or 0.1μF.



Wiring Sequence:

1-29, 2-30, 3-116, 5-84-70-106-121, 63-27-138, 28-81,
67-90-92-115, 91-68-105, 69-82-83-89, 119-124, 122-137.

NOTES