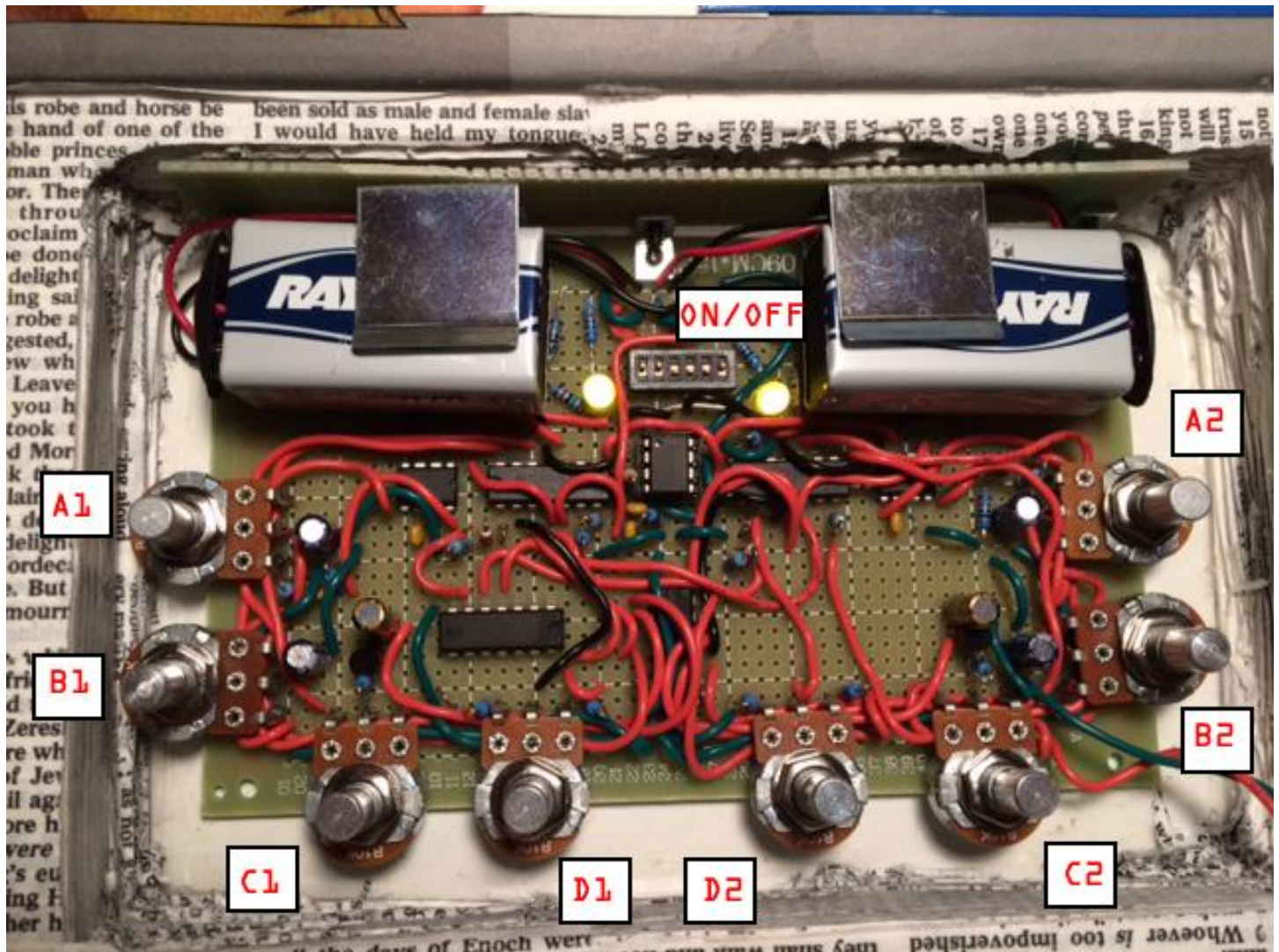


## GIDEON XOR Bibletron Cheat Sheet



### How it works

The bibletron does not have knobs on the potentiometers, but if it did, you'd see that the knob pointer would point at "7" when turned all the way counter-clockwise, "12" in the middle, and "5" when turned all the way clockwise. To turn on, click the two left-most DIP switches ON. Both yellow LEDs should light up. The Gideon XOR contains two Voltage Controlled Oscillators, numbered 1 (left) and 2 (right) in diagram above.

(A)--sample/hold frequency. varies the rate at which the random voltage changes, from 25/second at "7" position to 1/second at "5" position

(B)--slew rate--how quickly the voltage "slides" from one voltage to the next. No slew at "7" position, maximum slew at "5" position

(C)--random voltage scaling. at "7", scaled to zero (as you turn the knob counter-clockwise, the pitch goes down. at "all the way", the oscillator oscillates at sub-sonic frequency, i.e. you won't hear anything!); at "5", full range.

(D)--pulse width of the oscillator--The oscillator jumps back and forth from zero volts to 8 volts. "Pulse width" describes the percentage of the time that the oscillator is at 8 volts. 50% gives a square wave. At "7", the pulse width is zero, resulting in silence. At "5", the pulsewidth is around 75%.

### Things to be aware of:

1. Gideon XOR turns on by turning on the 2 left-most dip switches...you will know both are ON when both yellow LEDs are lit. If BOTH LEDs are not lit, the XOR will not function.
2. Output signal is very hot--around 8 volts. Won't hurt any mixers or effects units, but it is pretty loud.
3. requires 2 9volt batteries. Circuit board is held in place by a strip of duct tape, so when it is time to swap the batteries, just pull the board out of the book--there's not much clearance to pull them out while still in the book!
- 3a. If you have one of those plug-in things that replaces a bunch of 9v batteries in pedals, DO NOT use it with the Gideon XOR. You will probably fry the XOR, and possibly your power supply, too.
4. If you've turned it on and BOTH LEDs are lit but no sound is coming out, DON'T PANIC! First, turn knobs (C) all the way clockwise. This turns voltage scaling to 100% (see below). If still no sound, check the (D) knobs. If they are both at full counter-clockwise, pulse-width will be 0%, and the oscillators are silent.

### Yeah, so what was the point of all this?

Milwaukee Noise Purveyor Dan of Earth created Bibletrons when his modular synth work was starting to get too complex. By limiting an entire electronic instrument to what could be crammed into the space inside a hollowed-out Gideon Bible, it ensured that the result would be extremely primitive--no room for knobs on pots, wires and components in plain view.

Now, Dan of Earth brings a new model of Bibletron--to you!

For a long time, I've wanted to do a Dan of Earth release which was basically a still-playable anti-record/art object--something you could JAM on, or just switch on and listen to (sort of like a Noise "Buddha Machine"). Now I think I've got it figured out. I present to you, the "Gideon XOR"--two random voltage generators (each w/ independent Sample/Hold rate, slew, and scaling controls) feeding two pulse VCOs (each with adjustable pulse width). The resulting waveforms are ring modulated together (technically, a logical operation called an "Exclusive OR" is performed on the two waveforms (Hence the name!). For "square" waves, this sounds pretty much like ring modulation). This edition was created as a set of 20.

Have Fun!

Dan of Earth

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