



Denver, CO
<http://wmdevices.com>
sales@wmdevices.com
 303-351-2202

The WMD Geiger Counter

Thank you for purchasing your new WMD Geiger Counter and welcome to the world of digital destruction.

Geiger Counter Features

High Gain Modern Preamp	Dramatic Tone Control
Sample Rate: 260Hz - 58kHz	Tone Disable for Alt Response
1-8 Bit Depth/Mask	252 Wave Table Modulator
Relay True Bypass	CV Key Input
Epoxy/Powder Coat Finish	Top Quality Components
Always Saves Settings	Standard 9V Center (-) Power

The Controls

Gain. Low settings provide clean tones with no distortion at all, while high settings will brickwall your signal for great sustain. Use the Gain control as a coarse setting for getting the desired tone from the selected wave table.

Tone. The Geiger Counter's tone control blends muffled low-mids with chimey and clear upper mids and highs, providing a very large range of sounds in junction with the Gain. All the way down and the sound is muffled and grungy with little upper harmonic content. The middle range is smooth and full bodied. The top range cuts the lows completely for only upper harmonic content. Use the Tone to fine tune the sound of the wave table.

Tone Enable/Disable. This switch removes the tone control from the preamp circuit. The tone control sucks some volume from the gain, and this allows the pure ultra hot signal to go directly into the Wave Table. If a very clean tone is desired, set to Disable and adjust the gain to get the right amount of breakup. For most wave tables, disabling the Tone will produce completely different sounds by brickwalling to the extremes of the tables faster.

Sample Rate. Controls the length of the samples your signal is converted into. Full up and the Geiger Counter samples faster than a CD. Dial it down a little and you'll lower the fidelity and frequency response, adding overtones and difference frequencies. Down a little produces some very nice chimey clean tones. Down more and higher notes disappear into difference frequencies, all the way down to 280Hz. The sample rate is sort of like a flange whammy.

The LED by the Sample Rate knob shows the key input and coarse/fine modes. When green, the Key input is active. When red, the sample rate is changed in smaller increments (fine mode), allowing for smoother adjustment for the high range of sample rates. The LED is yellow if the key input and fine mode are both active. Push the Wave Table knob to change the modes of the Bit Depth and Sample Rate LEDs.

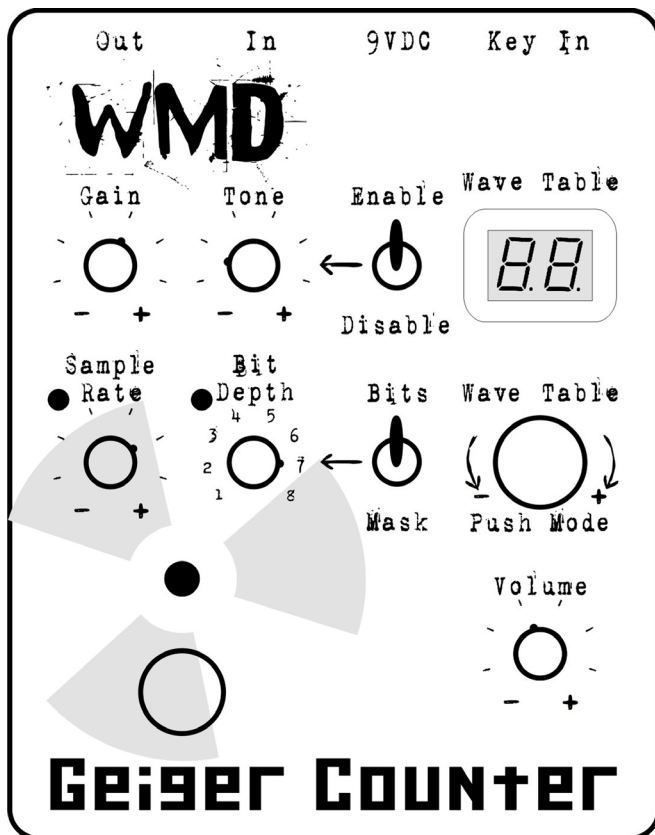
Bit Depth. This controls the finer details of the signal. All up and your signal is represented by the full 8 bits. Each step down cuts the resolution in half, adding quantization error distortion, all the way down to 1 bit making a nasty square wave from a once clean tone. This produces a lo-fi gated distortion sound.

The LED by the Bit Depth knob shows the key input and post/pre wave table modes. When green, the key input is active. The Bit Depth function is available before (LED red) or after (LED off) the wave table algorithms for different sounds. Use the bit depth before wave table mode to change the response of the wave table. The LED is yellow if the key input and pre wave table modes are both active.

Bits/Mask. This switch controls how the Bit Depth knob works. In Bits mode, the Bit Depth knob reduces the resolution of the signal. In Mask mode, the signal is filtered through a number (0 to 255). This mode can be used to reduce noise and add gain. In pre wave table mode, it can turn off small ranges of the wave table, creating altered harmonic content from the tables. Adjust the knob to taste when in Mask mode.

Wave Table. This knob and display select the wave table to run your signal through. The wave table stage takes your signal and destroys it with math. This produces some incredible sounds. The wave tables are organized so that a more extreme version is typically found one up from the current one. There are 252 wave tables in all, each with different harmonic content.

The display is in HEX, displaying the numbers 0-9 and the letters A-F. Don't be alarmed, it actually makes remembering your desired wave table easier! The wave table is remembered when the pedal is turned off.



The CV Input

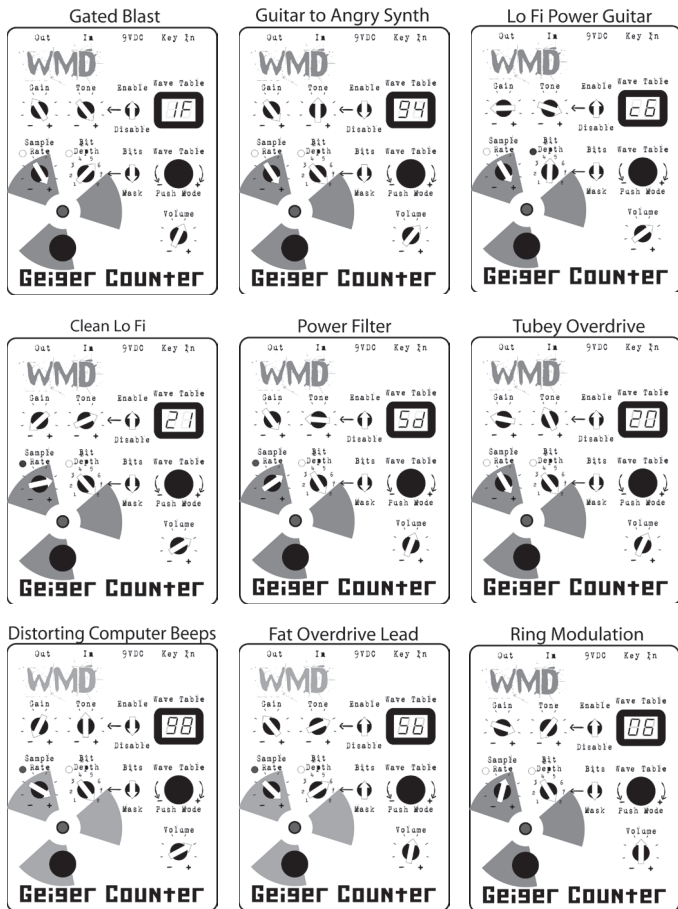
The Geiger Counter's CV Input can be set to affect the Bit Depth, Sample Rate or both at the same time. Push the Wave Table knob to set the key input destination (the LEDs by the sample rate and bit depth knobs will become green when the cv input is active on them). Note that if yellow, the cv input is active while the Sample Rate is in fine mode, or the Bit Depth is set pre wave table.

The CV input has a jack sensor, so CV settings can only be applied while a cable is installed in the pedal. The Geiger Counter will cycle through the red modes unless a cable is plugged into the CV input.

The Geiger Counter can use any standard expression pedal, LFO or other CV (control voltage) source. 0-5 volts ONLY.

The Geiger Counter supplies 5.6 volts at the ring of the CV jack, ground on the sleeve and signal input (CV or Expression Pedal Control) on the tip. Using a cable without a ring will cause this voltage to be shorted to ground, and will not hurt the Geiger Counter.

Example Settings



The Company

William Mathewson Devices is a Denver based company specializing in versatile audio electronics. Our products have usable knobs that typically extend beyond the "usable" range in order to encourage experimentation. We strive for studio quality sound in our pedals, meaning low noise and low distortion (only when you don't want any distortion). We strive to create products with strange features and settings that inspire creativity through unpredictable behavior.

Additional Notes

Power Adapter - The Geiger Counter uses the Boss style 9 Volt power adapter. These adapters have the positive (+) on the sleeve and the negative (-) on the pin.



The power inlet is reverse polarity protected, and is over voltage protected to 24V. The acceptable voltage range is 8-10V DC. Voltages outside this range will not send power to the pedal, so it will be off.

Using a power supply is required as the Geiger Counter draws 30-40mA. This consumption has been minimized by design, but is still significant. 9 volt batteries are not supported by the Geiger Counter.

Do not underpower (starve) the Geiger Counter, it will simply not power on and would sound terrible if it did.

Warranty - All WMD pedals are guaranteed against defects for 1 year from date of purchase. If the pedal is deemed defective at fault of WMD, it will be repaired or replaced free of charge (shipping to be paid by buyer). If pedal is deemed damaged at fault of buyer, regular repair rates will apply.

