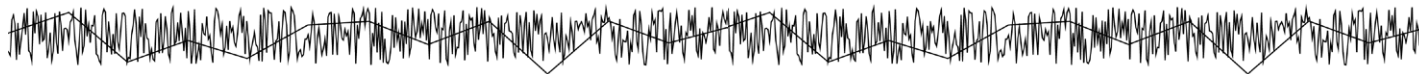


MSG II



WHAT DID I JUST BUY?

MSG II is a robust sound generator that features 8 different algorithms. For our second version, we compiled our favorite features of different chips from MSG I into a single chip. All chips from MSG I are compatible with MSG II.

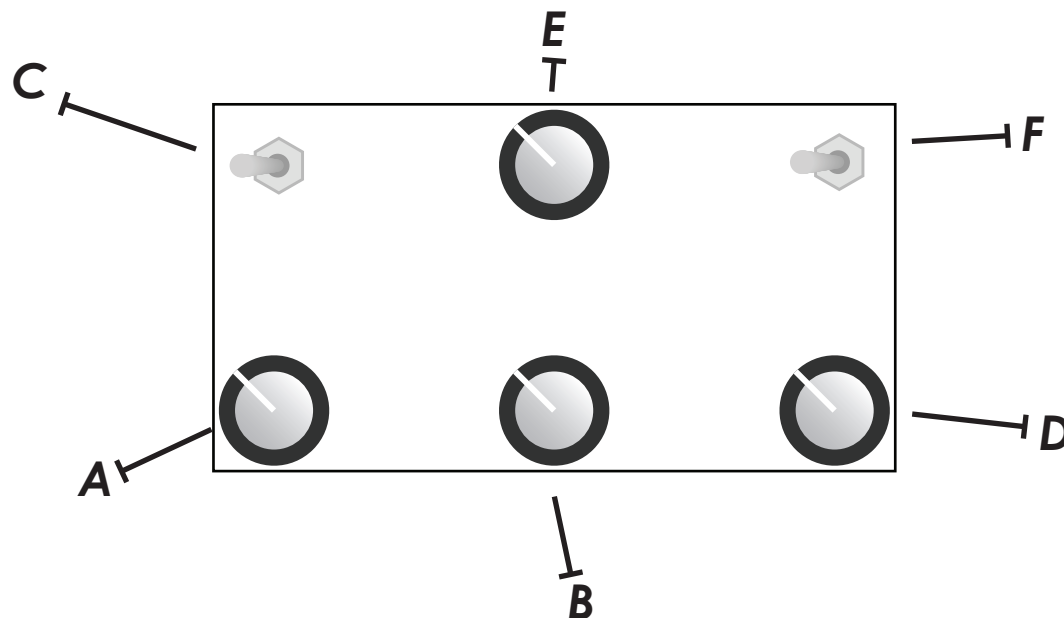
SPECS

- 'STANDARD' 9VDC CENTER NEGATIVE REGULATED
POWER SUPPLY OR (X1) 9V BATTERY
(NEITHER INCLUDED)

- CURRENT DRAW: 15MA +9V

- BATTERY LIFE: ~23 HOURS

- 100K OUTPUT IMPEDANCE. ~5VPP OUTPUT



A.) ALGORITHM: Selects algorithm. In order from left to right they are:

1. **FM:** One triangle oscillator modulating pitch of another.
2. **AM:** One triangle oscillator modulating volume of another.
3. **DETUNED TRIANGLES:** Two triangle waves summed together.
4. **DETUNED SAWS:** Two sawtooth waves summed together.
5. **PHASE DISTORTION:** One triangle oscillator with phase distortion.
6. **HARD SYNC:** Two sawtooth waves, one resetting phase of the other.
7. **WAVETABLE:** 16 wavetables.
8. **GLITCH:** A byte-beat style glitch oscillator.

B.) MACRO: Changes behavior in each algorithm.

1. **FM:** LFO modulator frequency. Modulation depth is fixed at 100%.
2. **AM:** LFO modulator frequency. Modulation depth is fixed at 100%.
3. **DETUNED TRIANGLES:** Pitch of second oscillator. Unison is at none.
4. **DETUNED SAWS:** Pitch of second oscillator. Unison is at none.
5. **PHASE DISTORTION:** Phase distortion amount.
6. **HARD SYNC:** Frequency of reset oscillator.
7. **WAVETABLE:** Wavetable selector.
8. **GLITCH:** We don't really know...

C.) MODE: Changes behavior of macro in each algorithm.

1. **FM:** LFO range. Goes from control rate to audio rate.
2. **AM:** LFO range. Goes from control rate to audio rate.
3. **DETUNED TRIANGLES:** Detune range. Fine/coarse tune.
4. **DETUNED SAWS:** Detune range. Fine/coarse tune.
5. **PHASE DISTORTION:** Octave switch. Octave up/down.
6. **HARD SYNC:** Octave switch. Octave up/down.
7. **WAVETABLE:** Engages harsh noise mode.
8. **GLITCH:** We don't really know...

D.) PITCH: Master clock speed. Turning this knob will affect pitch, sample rate, and overall animation speed of each algorithm.

E.) VOLUME: Master audio output.

F.) POWER: Turns MSG on and off.