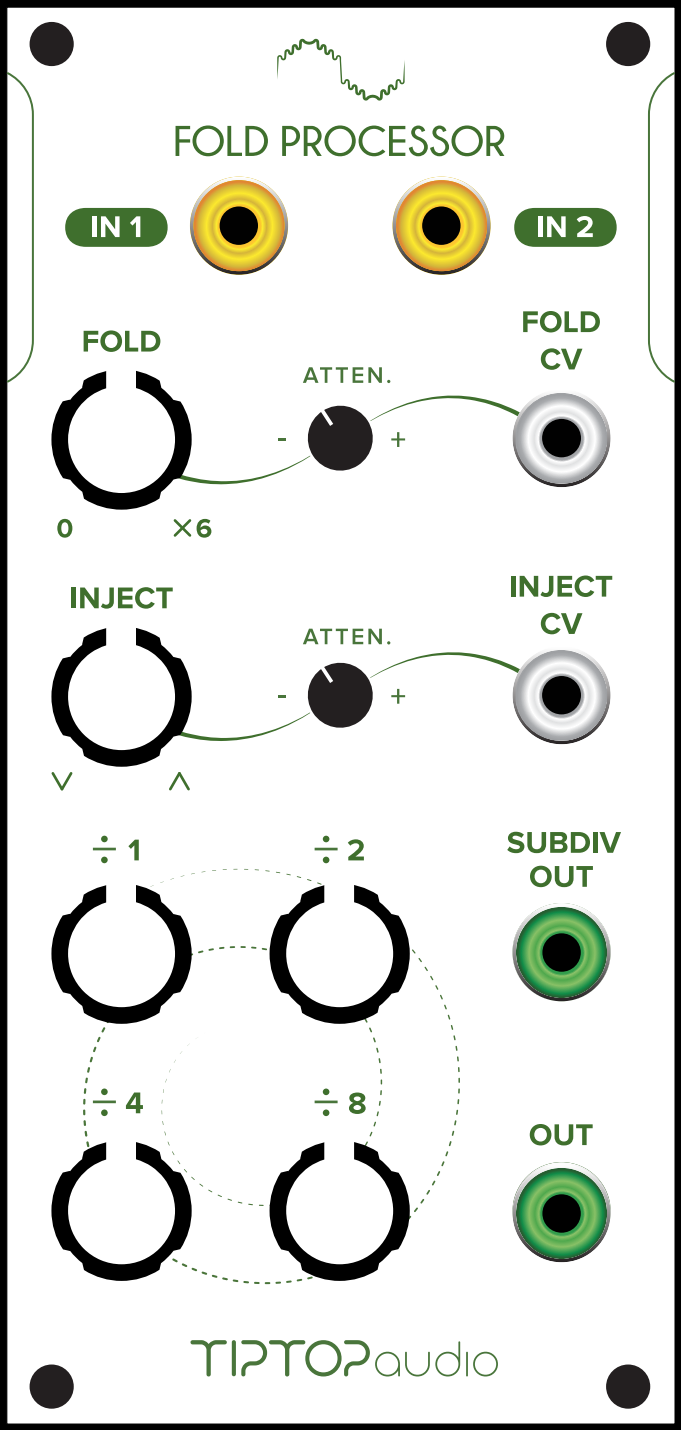
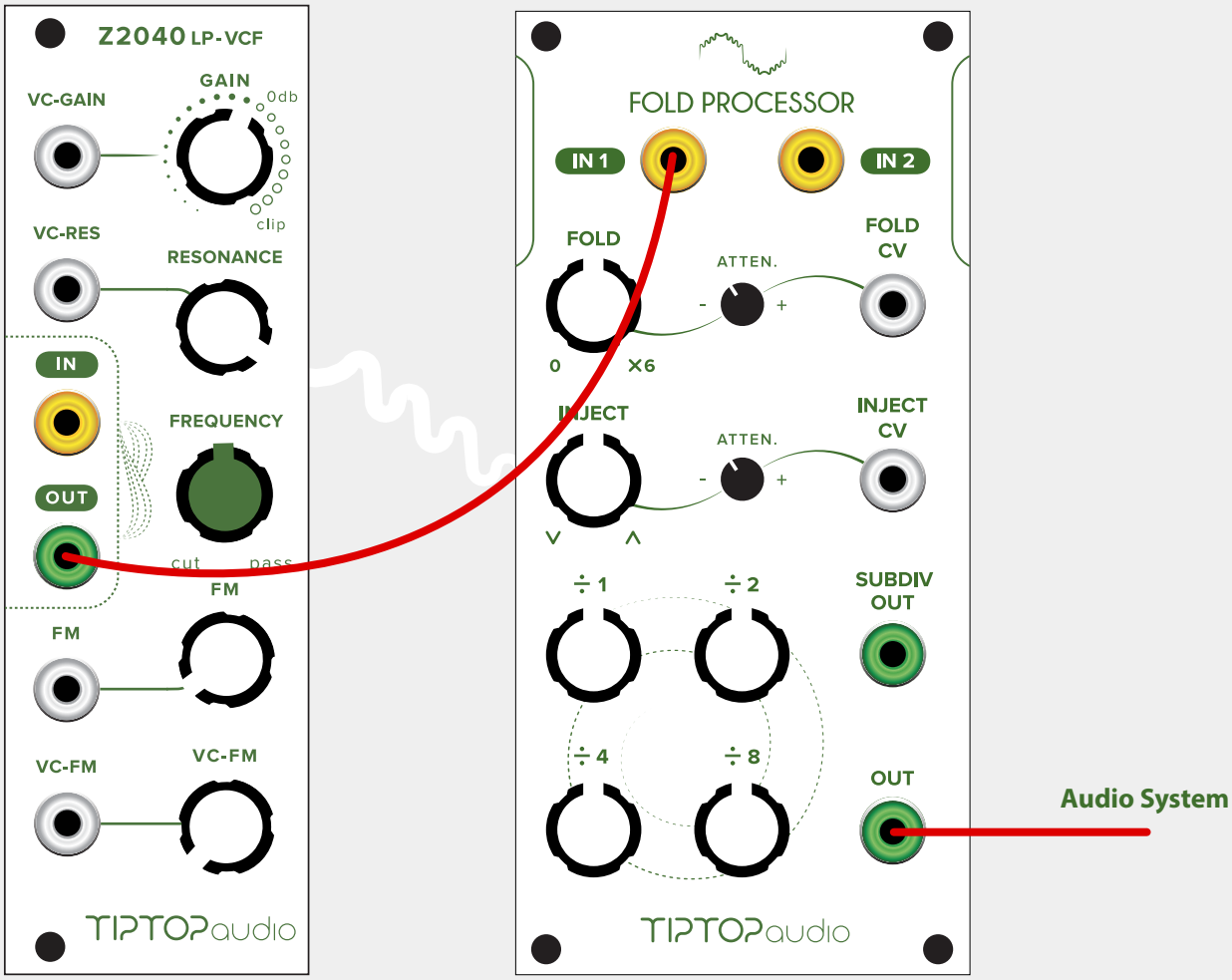
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Fold Processor

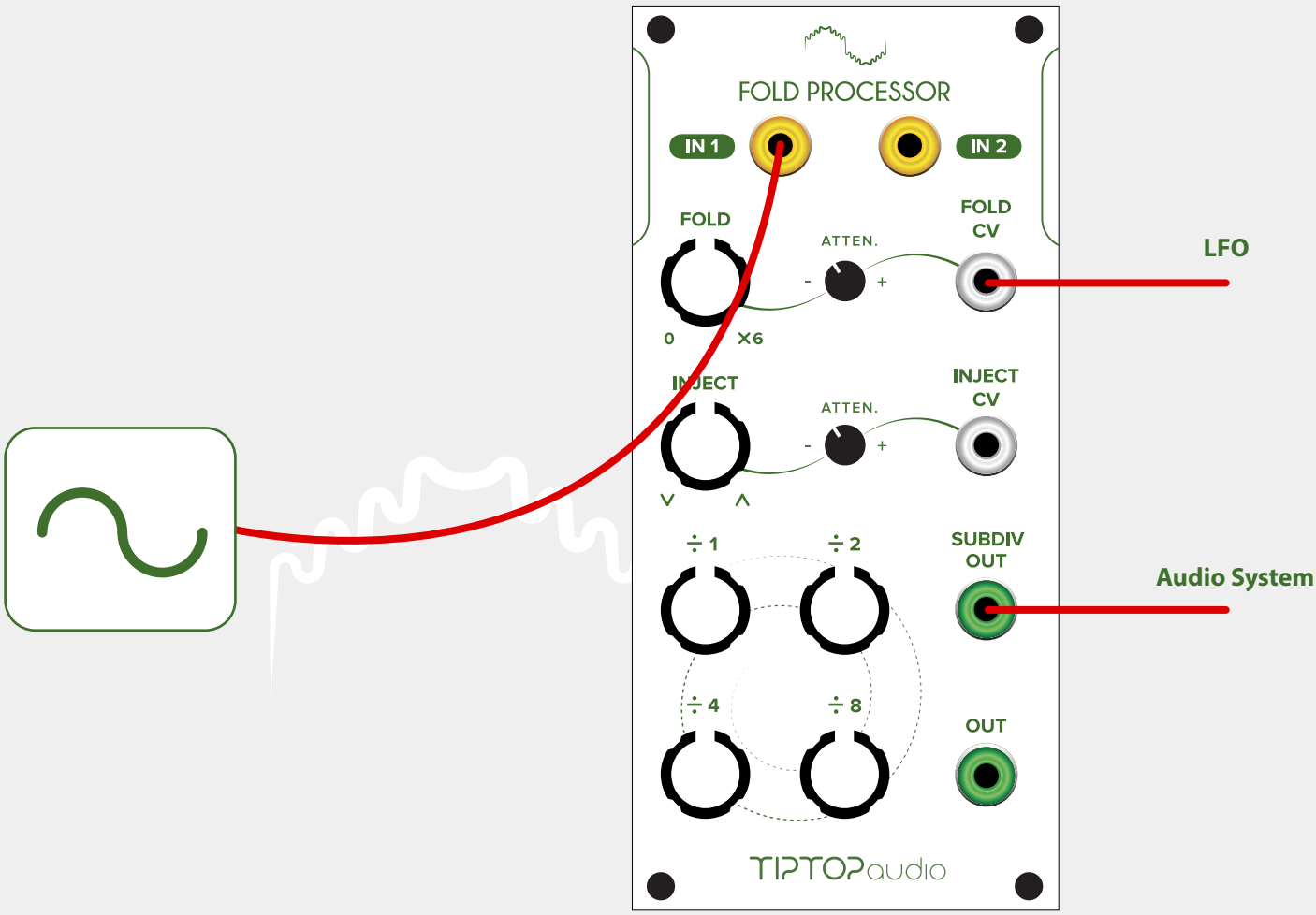
The Fold processor is a 100% analog module built from two sections: first is a diode 'folding' circuit inspired by the middle section of the Serge wave multiplier module and its output is available at the OUT jack. The second section feeds from the OUT into a square & divide circuit which is original to this module, is output at the SUBDIV OUT. The module is very easy to use, the resulting sounds are heavily dependent on the type of the incoming signal.



To get started patch as the drawing above, set your Z2040 resonance to max, set the frequency knob half way, this will cause the Z2040 to self oscillate a natural sine wave (if you don't have a Z2040 use the sine output from your Z3000). Plug the Z2040 out into the IN1 on the Fold Processor (we'll call it just Fold from now on). Connect the Fold OUT jack to your speaker system and sweep the FOLD knob, if you don't hear a sound change the INJECT knob as it might be in the 'dead' zone.

You should now hear how the FOLD knob folds the signal and how the Inject input further offsets the signal adding more variations. Both of these knobs can be voltage controlled by CV with the amount of modulation set by the ATTEN knobs.

After getting familiar with the folding effect lets move to the subdivide section and explore it. Disconnect from the OUT jack and plug it into the SUBDIV out. The subdivider has four divisions spaces exactly one octave apart, each with a gain knob and mixed into the SUBDIV out jack. First turn all divisions off, now turn on division 1, use the FOLD and INJECT knobs to hear the effect. The INJECT might set a 'dead' zone at the edges, this is normal and is part of the circuit behavior. Now increase the input signal frequency and start adding the other divisions, adding lower tones.



The subdivide circuit gets totally wild when sweeping the Fold and Inject knobs, octaves move in and out and pulses get pulse width modulated. The sound ranges from sweet at times to total destruction at others; experiment by adding some delay from the Z-DSP and things get really interesting.

The fold processor works with pure waveforms in its classic use, meaning waveforms from a VCO or a self oscillating filters, but when complex sounds like samples from ONE or drums are input, the Fold processor can be used as an analog distortion inside the modular. This is distortion effect for modular signals similar to how guitar pedals are used for string signals.

Now that you are familiar with the Fold processor start use it in creative ways, put it before or after a filter, run it in the feedback path of the Z-DSP, or patch the OUT jack into the FM in of a VCO, this is modular so be creative!