

Errorbox employs three different digital distortion techniques to mangle your signals: sample-rate reduction, bit-depth reduction, and Audio Damage's proprietary ERR function. Sample-rate reduction causes frequency-dependent distortion by measuring and reproducing the level of signals at a lower-

than-normal rate. Bit-depth reduction removes information about the amplitude of signal, creating noisy approximations of the original. ERR introduces errors into the signal, damaging it in unpredictable ways. Errorbox's effects range from a subtle vintage digital vibe to complete sonic obliteration.

### Control-Voltage Jacks

Control voltages present at the jacks are added to the values set with the knobs.

Positive voltages at the **SRR** jack lower the sampling rate; negative voltages raise it.

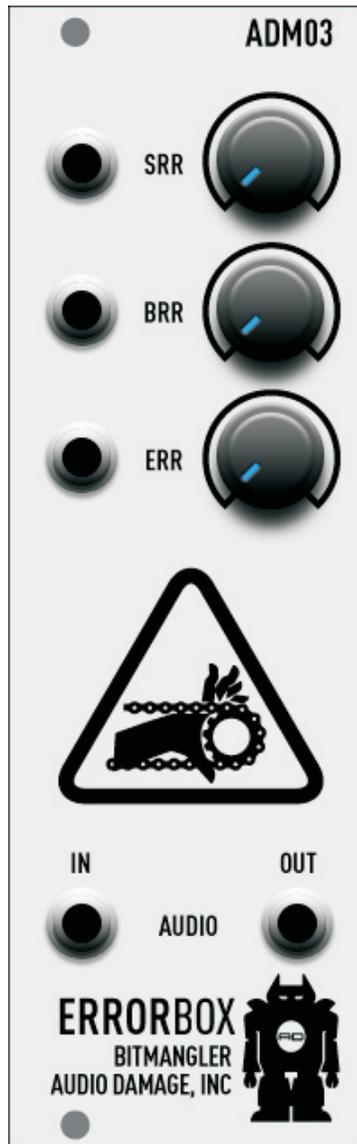
Positive voltages at the **BRR** jack reduce the number of bits used to represent the signal; negative voltages increase the bit resolution.

Positive voltages at the **ERR** jack increase damage caused by the ERR function; negative voltages decrease it.

The useful range of voltage for the CV jacks is  $\pm 5V$ .

### Audio Input Jack

The audio input signal goes in here. The hardware will be happiest if the signal level is within  $\pm 7V$ .



### Knobs

**SRR** controls the sample-rate reduction. Turning this knob up lowers the sampling rate (which increases the amount of distortion). The sampling rate ranges from 48kHz to 48Hz. You'll find that sample-rate reduction affects higher frequencies first.

**BRR** controls the bit-resolution reduction. Turning this knob up reduces the number of bits used to reproduce the signal, making it noisier and sometimes louder. The number of bits ranges from 16 to 1. The effect varies with the amplitude of the input signal.

We're not going to tell you exactly what **ERR** does, but turning the knob up wreaks an increasing amount of havoc with the signal. The **BRR** and **ERR** knobs are somewhat complementary in that the effect of the **ERR** function is less noticeable at high settings of the **BRR** knob.

### Audio Output Jack

The processed signal comes out here. It may or may not bear much resemblance to the input signal.

- Obviously the main intent of this module is to induce a serious amount of digital-sounding distortion. This, in the words of a famous convicted felon, is a good thing. However, subtle amounts of sample-rate- or bit-resolution reduction can add a subtle sheen or fuzziness, adding character to the sound without destroying it.

- Following this module with a low-pass filter can roll off the harsh high frequencies inherent in digital distortion, preserving the interesting textures present in lower frequencies.
- Errorbox is a quick and effective tool for turning a ho-hum analog VCO into something with old-school digital charm.

