



DIRTY LAUNDRY

Description

Dirty Laundry is ALA's take on a destructive harmonic generator. The FOLD side can function as a standard Buchla-inspired wave folder but then extend into chaos when you engage the "pre-fold" PRESS section. The Press section creates all kinds of initial harmonics that really give the Fold section something to sink its teeth into. This results in a nice range of controlled harmonics from simple fold activity to anarchy.

The Press and Fold sections can function either as two parallel sections or as single serial unit. There are crossfaders between the sections and at the end of chain to help with blending between these two distinct sections. In development I mainly use it as a serial unit as I think it's most fun that way. But I found the need to control the mixes to get what I was after, so I added some extra patch points to make it parallel capable.

The module will work well with all waveforms (speech is fun) but I often stick with sine and triangle waves as I find them the most pleasing starting point. While most folders won't work well with square waves, the RES/DRIVE circuit will cause some rippling and make the FOLD much more interesting.



Introduction

DIRTY LAUNDRY

Destructive
Harmonic
Generator

Press side distorts,
folds, and resonates.
Gives the fold section
something to dig into.

CV control over each
parameter



AFTER LATER AUDIO



Fold side is a
Buchla inspired
wavefolder

End of chain VCA
to help calm
things down

Press and fold sections
can be either parallel
or serial pathways with
blend controls between the
sections and at end of chain



Panel Details



PRESS

- 1) Input to Press circuit, expects 10Vpp (+/- 5V).
- 2) Frequency of the resonance in the press circuit
- 3) Switch between a high range and low range for the resonant frequency
- 4) Drive control for the press circuit
- 5) On/off control that disables the drive and frequency section of the press circuit. Depending on other settings, you can at times hear the drive/frequency section bleeding through the module. Use this to disengage the circuit to clean up the signal.
- 6) Control over the single stage wave folder. Folds in the incoming signal in thirds.
- 7) The resonant frequency CV input and attenuator (-10V to 10V). Summed with panel control, negative CV only has impact if knob is turned up.
- 8) The Drive CV input and attenuator (-10V to 10V). Summed with panel control, negative CV only has impact if knob is turned up.
- 9) The Press circuit CV input and attenuator (-5V to +5V)
- 10) Press circuit output



FOLD

- 11) Input into the FOLD circuit. Normalled to take the output of the press circuit.
- 12) Blend the input into the FOLD circuit between the IN1 and IN2 inputs. With nothing plugged into IN2, you will get the PRESS output.
- 13) CV control over the blend control for the FOLD input. (-5V to +5V)
- 14) Gain level for FOLD input. Folders are very sensitive to level so this allows you to boost or attenuate the levels. For 10Vpp signals, setting at noon will get you a neutral output.
- 15) Fold amount. Five stage parallel folder will generate lots of odd harmonics.
- 16) Output blend control that enables combining the FOLD output with either the PRESS output or the SUB OSC. The SUB OSC can either be generated from IN1 or IN2 via a jumper on the back of the module.
- 17) Switch between the blend control between either the PRESS output or the SUB OSC.
- 18) CV control over the blend of the FOLD circuit output.
- 19) Fold circuit CV control with attenuator (-10V to 10V). Summed with panel control, negative CV only has impact if knob is turned up.
- 20) Output VCA CV control with attenuator.
- 21) Fold circuit output.



More Details

PRESS

The PRESS section starts with the RES/DRIVE controls. These are essentially two op amps in a duel and neither of them ever wins. Kinda cruel if they were sentient, but I don't think we're breaking any ethical boundaries here. The two controls have a lot of impact over each other, so if you feel the knob range is off, adjust the other one and keep playing. Definitely start with the switch in the LOW position, and experiment with HI after you get the hang of it. Be sure the drive switch is in the ON position or the RES/DRIVE section will be completely bypassed. If you watch on a scope you'll see all kinds of ripples in the waves from the resonance and squaring from the drive.

The PRESS control is a single stage folder that will add some initial harmonics, nothing too crazy. But you will find it again plays with the RES/DRIVE controls quite nicely. They take some experimentation to understand the relationship, but you will quickly learn to find some sweet spots between the three. After you start to understand the relationship between those three controls, injecting some CV really makes it sing.

The Press section is vactrol-based (RoHS compliant) so you will find that the range of controls and CV inputs will have some variance between each unit.

FOLD

Because the fold section can generate so many harmonics on its own, the module has a crossfader at the input, to moderate what goes in, and at the output to offer control over what comes out. The crossfaders also have CV control so you can bring some added life to your patches.

The input crossfader is a little confusing because it offers balance between IN1 (the fundamental) and IN2, which is normalised to the output of the PRESS section, but you could patch in another fundamental (or complex waveform). So by default the input crossfader offers you a balance of how much of that PRESS circuit vs the IN1 fundamental you are sending into the FOLD circuit.

About that gain knob - to create the fold activity a wavefolder is really just increasing levels into the circuit. This makes folders very sensitive to input levels. The unit is tuned to the Eurorack



standard of 10Vpp (at noon) but the gain knob is there in case you need to add some gain to a weaker signal and get it up to an appropriate level before the folder (or tame a hot signal).

The folder is a folder that will fold things into wacky positions. But it sounds so nice. Modulate it, please, it's begging for it.

The output section allows some more taming options to calm things back down and reduce the blood flowing from your ears. The output crossfader allows you to balance the FOLD craziness with some of the PRESS output or a SUB oscillator. The SUB can be configured on the rear of the module to either take its input from IN1 or IN2. I almost always leave it on IN1 as I like the unit as a serial unit and seldom use IN2. After adding all those upper harmonics it can be nice to bring back in some low end to give body back to your sound.

Do note that the SUB circuit is a bit wonky and you will find it can skip at times. Enjoy it, it's a feature.

It can asymmetrical and noisy

The Press section will generate some noise as the main signal path goes through some small transistors and is then re-amplified. The transistor pair is not matched and will cause some asymmetry. I have really enjoyed the module this way, so I left it alone.

The Fold side is based on the Buchla circuit, which always had an oscillator attached. It is clean when an OSC is attached, but when there is no signal you will hear some growl. There is an onboard end of chain VCA specifically to help with containing all of this noise. The module creates some great tones but the VCA is there for when you need to tell it to be quiet.