



A web guide to
Generation Loss MKII

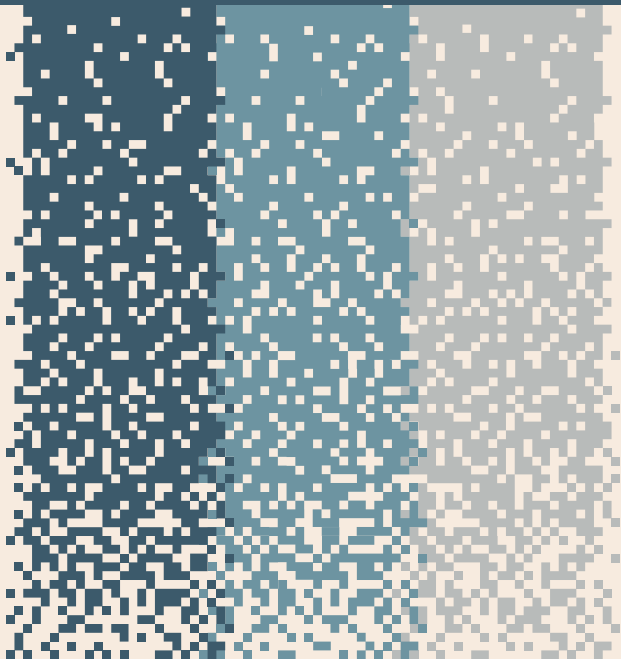


Table of Contents

2	Overview	
4	Getting Started	
6	Controls	→ 6 Knobs
		→ 10 Toggles
16	Wow	→ 12 Footswitches
		→ 14 Hidden Options
18	Flutter	
20	Models	
24	Saturate	
28	Failure	
32	Aux	
34	Classic Mode	
36	Customize	
38	Ramping	
40	↳ Ideas	
42	External Control	
44	Signal Flow	
46	Bye	



9V DC Power req: 9VDC Center Negative ~250 mA

Overview

Within **Generation Loss MKII** are two different approaches to the same challenge:

To recreate the nostalgic sounds of tape, specifically VHS.

One built through  imagination and intuition (Classic).

One built through  study and analysis (MKII).

This manual will focus on the new **MKII** features.

Also, we're going to call it **Gen Loss** from now on because it's easier.

You can think of **Gen Loss** as a VCR deconstructed. It takes each of the oddities and artifacts tape machines impart on your sound and gives them an independent control.

So you can choose.

Maybe wow isn't for you – that's fine, turn it off. Have one part of your tape machine horribly broken, while the rest is pristine and perfect.

Within **Gen Loss** are all the parts you need to faithfully recreate a whole library of tape machines, or you can ditch that idea and build something new. A magnetically saturated chorus, or a randomized stereo splitter, or a versatile EQ.

Or all of the above, saved to different presets.

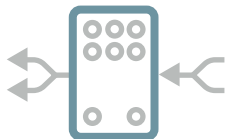
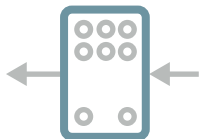
We are here to show you how.

Getting Started

The first thing to do is acclimate **Gen Loss** to your setup. This will only take a moment.

The default setting will work for most:

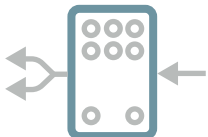
- Mono in, mono out.
- Stereo in, stereo out.



Whatever goes in comes out. Simple.

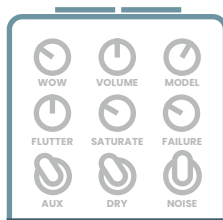
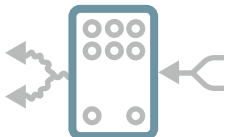
If you have a mono input, but want to split it to stereo output:

- Turn on **MISO**.



And if you want unique stereo processing:

- Turn on **SPREAD**.



Now try this.
Nice and wistful.



Try maxing out each knob, one by one, while leaving the others as pictured.



Explore how mixing in some dry signal can expand your sound.

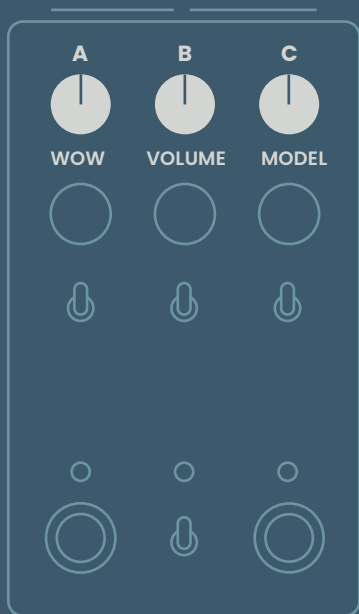


Try out the different **AUX** functions.

Almost every setting will conjure up a tape machine of some kind. Let's go a little further and look at it piece by piece.

After controls, of course.

Controls - Knobs



Wobble, boost, filter.

A

WOW

Sets the depth of slow, smooth, random pitch modulation. Your classic tape-style motion, like unpredictable vibrato.

B

VOLUME

Sets the output level of the wet signal. Noon is unity, max is boosted by 2x. If ramping is engaged (pg. 38), the function of this knob will change. The volume setting will be remembered, but it now controls the speed of the movement.

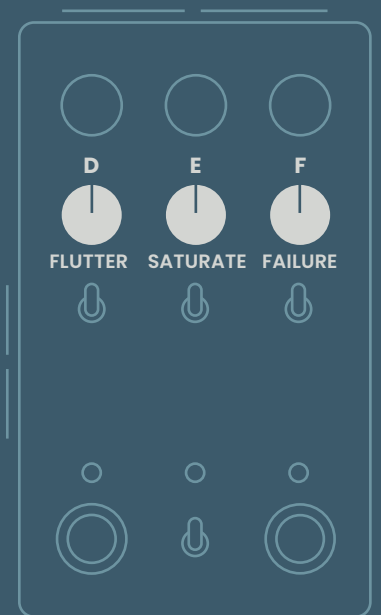
C

MODEL

Steps through a library of tape machine models, each with its own unique EQ profile. VCRs, cassette decks, camcorders and more, each one designed through frequency-analysis of physical hardware.

LP (CLASSIC MODE) Sets the cutoff frequency of a resonant low-pass filter. Roll counter-clockwise to remove high frequencies.

Controls – Knobs



Wriggle, distort, disrupt.

D

FLUTTER

Sets the intensity of fast, twitchy, random modulation. Affects both amplitude and pitch, giving the impression of quivering, trembling tape.

(CLASSIC MODE) Similar to MKII, but without amplitude modulation.

E

SATURATE

Recreates a unique form of magnetic saturation that occurs when loud signals are recorded to tape. Known as a magnetic hysteresis loop.

GEN (CLASSIC MODE) Sets the sample rate. Roll counter-clockwise to degrade the audio quality and introduce digital aliasing.

F

FAILURE

Gradually introduces a number of small malfunctions that naturally occur in tape machines and give them that living feel: snags, drops, crinkles, and pops. Can be customized using the dip switches and hidden options.

HP (CLASSIC MODE) Sets the cutoff frequency of a resonant high-pass filter. Roll clockwise to remove low frequencies.

Controls - Toggles



Recall, mix, select.

A

AUX

Selects a performance effect, activated by the left footswitch. You can set how quickly these effects set in using the hidden options.

B

DRY

Sets the loudness of your clean signal.

NONE - Pure tape machine.

SMALL - Drops in a touch of clean, keeping the tape effect dominant but creating a bigger and more detailed sound.

UNITY - Your clean signal will match the input level, useful for chorusing and other flavors of sun-soaked modulation.

C

NOISE

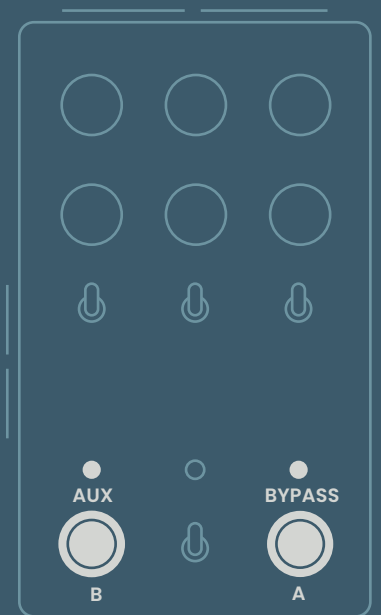
Introduces noise, which is made up of two elements: hiss and mechanical noise. The level of these two noise sources can be set independently via the hidden options.

D

PRESETS

The left and right positions each store a preset, while the middle position is live (current settings). To save to the right slot, hold the right foot switch for 3 seconds, then add the left footswitch for another 3 seconds. Do the same for the left slot, but start by holding down the left footswitch. The middle LED will blink to indicate success.

Controls – Footswitches



Engage, perform, tweak.



BYPASS

Activates the pedal.

Gen Loss has a variety of bypass and dry thru options. In its default state, it is true bypass with analog dry thru. See pg. 44 for the specifics.



AUX

Activates the AUX function.

Hold for momentary. You can use the hidden options to adjust the onset speed of the AUX effects.

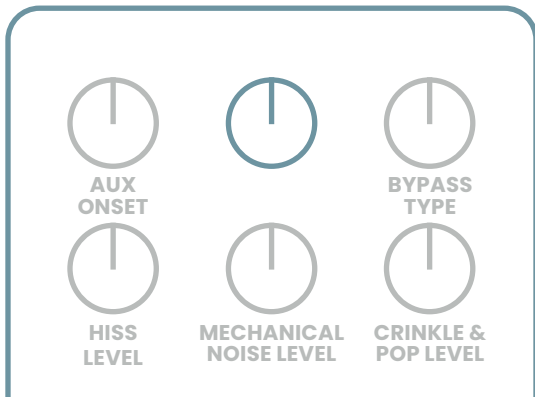


HIDDEN OPTIONS

Holding down both footswitches accesses a hidden menu that fine-tunes various aspects of Gen Loss. Keep the switches held down while making your changes, and release when you're finished. See next page for the options.

Hidden Options

Hold down both footswitches until the LEDs turn green to access the hidden options.



AUX ONSET (WOW knob)

Sets how long it takes for the **AUX** effects to set in. The further clockwise, the longer it will take. From instant arrival to crawling transitions.

HISS LEVEL (FLUTTER knob)

Sets the volume of the hiss introduced by the **NOISE** toggle.

MECHANICAL NOISE LEVEL (SATURATE knob)

Sets the volume of the mechanical noise introduced by the **NOISE** toggle. Noon is zero: Rotate clockwise for hum, rotate counter-clockwise for VCR noise.

CRINKLE / POP LEVEL (FAILURE knob)

Sets the volume of the crinkle and pop sounds introduced by the **FAILURE** knob.

BYPASS TYPE (MODEL knob)

Gen Loss has a DSP bypass option for clickless, artifact-free switching. When activated your clean signal will be digital thru, even with **Gen Loss** bypassed. Rotate clockwise beyond 12:00 to activate DSP bypass, rotate counter-clockwise of 12:00 to revert back to true bypass.

INPUT GAIN (DRY toggle)

Use this to match the saturation to your input signal. The right position allows for heavier distortion, but note that it can also introduce digital aliasing with louder input signals.

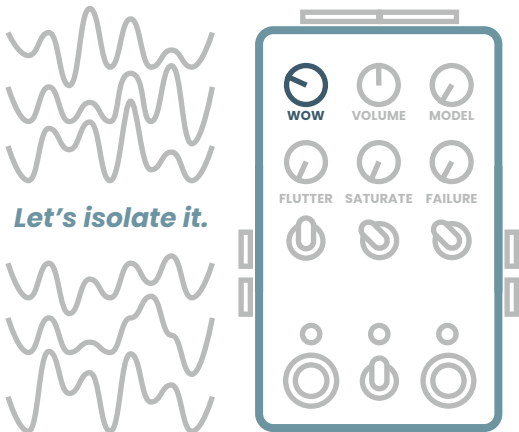


LINE LEVEL | INSTRUMENT LEVEL | HIGH GAIN
DRY

Wow

Wow is your classic tape-style movement.

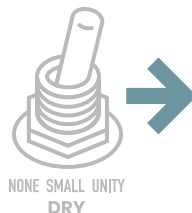
It gives you those signature off-kilter pitch bends, reminiscent of vibrato but random and rubbery.



Around 10 is the sweet spot for a nuanced sound that isn't overpowering. Higher settings evoke struggling machinery and melted tape.

WOW is also your key to getting some unique chorus sounds.

Flick the **DRY** toggle over to **UNITY** and expand.



If you'd like to get a little stranger, dial in some **FLUTTER** at this point for a shivering chorus. While it can be interesting to isolate the two, **WOW** and **FLUTTER** are very much partners and are best used together for a convincing tape effect.

So let's talk about that.



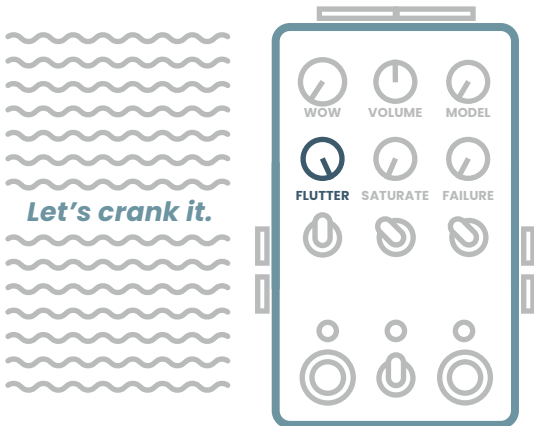
Flutter

Flutter is a rapid, wriggling movement that is largely unique to tape.



Unlike wow, with its erratic wobbling, flutter has an even, anchoring effect. It provides a steady presence that is almost more like texture than modulation. Never too high, never too low, just twitching away in the middle.

It affects both loudness and pitch.



Now turn it down just to the point where you stop noticing it. This is a good trick for more subtle, realistic settings.

Using **FLUTTER** without **WOW** can be useful for a sound that feels vintage, but not broken. Reminiscent of an older time, but without any obvious modulation.

Try dialing in just a bit of **FLUTTER** when using **Gen Loss** like an overdrive, EQ, or chorus. A secret ingredient for that extra touch of nuance.



Model

This is your tape library.

The **MODEL** knob steps through a variety of EQ profiles sampled from physical hardware.

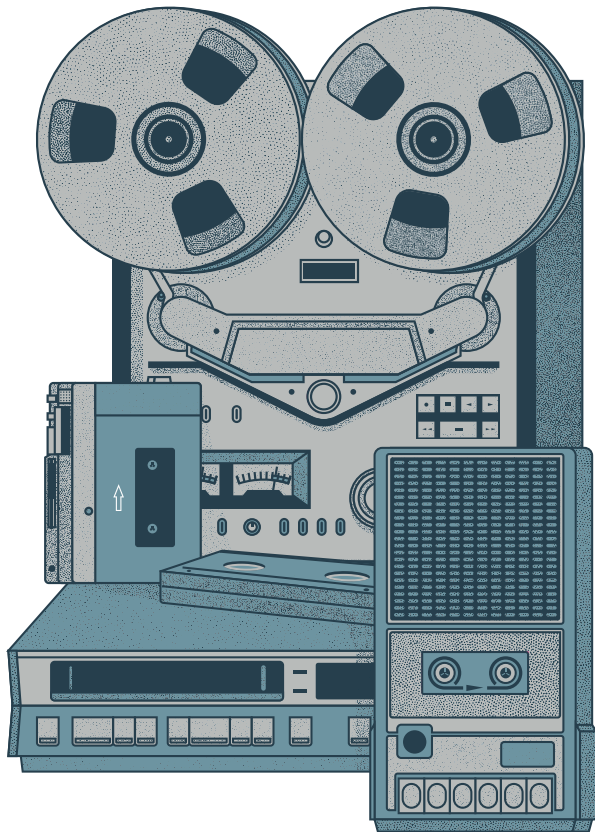


- 1-3 VHS
- 4-5 Portastudio
- 6 Camcorder
- 7-8 Dictaphone
- 9 Toy
- 10 Walkman
- 11 Broken
- 12 Reel-to-reel

A good way to explore the models is to recreate the settings from *Getting Started* (pg. 04) so you can hear how all the different parts interact.

Go through the models one by one and see what suits you.

Different instruments or sound sources will sound dramatically different from model to model.



Models - Continued



OFF
TYPE: NA
Turn all the way counter-clockwise to bypass MODEL. Unfiltered.



1 CPR-3300 Gen 1
TYPE: VHS
An old VCR in rough shape.



2 CPR-3300 Gen 2
TYPE: VHS
The sound of CPR-3300 Gen 1, re-recorded to that same VCR. A copy of a copy.



3 CPR-3300 Gen 3
TYPE: VHS
The sound of CPR-3300 Gen 2, re-recorded to that same VCR. A copy of a copy of a copy.



4 Portamax-RT
TYPE: CASSETTE
Desktop-style, all-in-one 4-track recorder.



5 Portamax-HT
TYPE: CASSETTE
Desktop-style, all-in-one 4-track recorder, played back at half-speed.



6 CAM-8
TYPE: CASSETTE
Camcorder. Sampled using the built-in mic.



7 DICTATRON-EX
TYPE: CASSETTE
Handheld voice recorder. Sampled using the built-in speaker and an external mic.



8 DICTATRON-IN
TYPE: CASSETTE
Handheld voice recorder. Sampled using the built-in speaker and the internal mic.



9 FISHY 60
TYPE: CASSETTE
Toy recorder. Sampled using the built-in speaker and the internal mic.



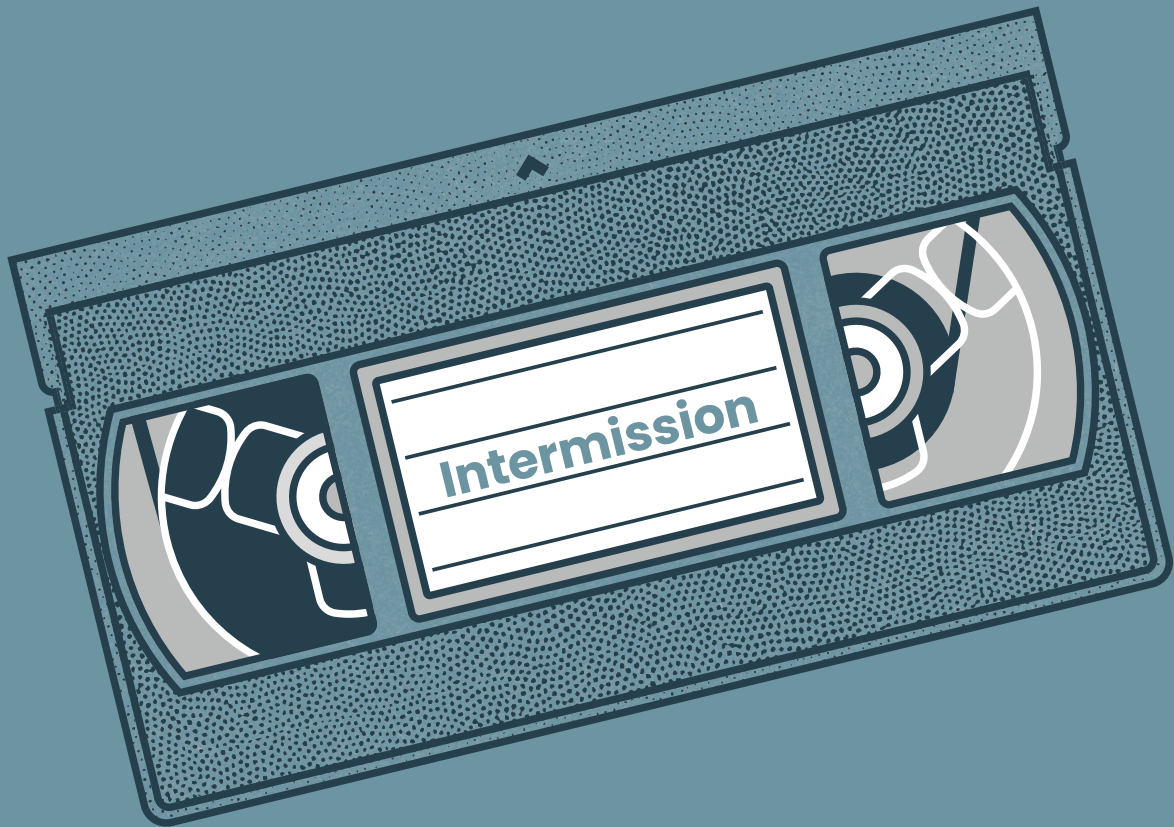
10 MS-WALKER (designed by BlankFor.ms)
TYPE: CASSETTE
Portable, personal music-player.



11 AMU-2 (designed by AMULETS)
TYPE: NA
An imaginary model based on deteriorated tape and a barely functioning recorder.



12 M-PEX (designed by Marcus Fischer)
TYPE: 1/4" REEL
A reel-to-reel using old, brittle tape.



Saturate

SATURATE introduces a unique form of dynamic distortion that occurs when a loud signal is recorded to tape, overwhelming it.

It's called a magnetic hysteresis loop and it doesn't really matter how it works, but it is kind of cool: the magnetic structure of the tape essentially shifts, altering any future sounds that are recorded.



Recording onto tape leaves an impression on magnetic material.

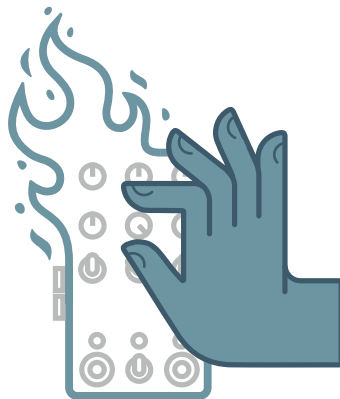


Future recordings are distorted by what the signal did in the past.

The **SATURATE** knob mathematically recreates this effect.

Much of the sweep is subtle to capture the authentic felt-but-not-heard vibe you would usually hear in tape recordings. But feel free to blow things out – you'll find mis-biased and gnarly textures at the extreme.

The amount of saturation will vary based on your instrument. You can use the hidden options to match the input gain to your setup, or access a high gain setting for heavier distortion (pg. 15).



Try turning everything else off and using **Gen Loss** like an overdrive.

SATURATE and **MODEL** are interactive. The tape models come after saturation in the signal flow (pg. 44), molding and filtering the distortion. Each model will exaggerate certain parts of the saturation while suppressing others.

Failure

The **FAILURE** knob is a multi-effect made of the small imperfections that are a natural part of tape. It introduces a living feel - unpredictability - and is also the key to stereo processing.



DROPS

Playback errors that cause brief moments of silence; the result of the playhead losing contact with the tape.



SNAGS

Abrupt pitch spikes; the result of the tape briefly getting stuck.



CRINKLES AND POPS

Micro-disturbances that produce a shaky, crumbling feeling; the result of tape becoming weathered and uneven, and/or having debris on its surface.

You have some options for customizing it:

- You can bypass the drops and/or snags using the dip switches.
- You can set the loudness of the crinkles and pops using the hidden options (pg. 15).

The crinkles and pops are made up of two parts:

- **THE SOUND**

The audible rustle of crinkles and pops. You will hear these even if no audio is going into the pedal. This is the part you can adjust with the hidden options.

- **THE EFFECT**

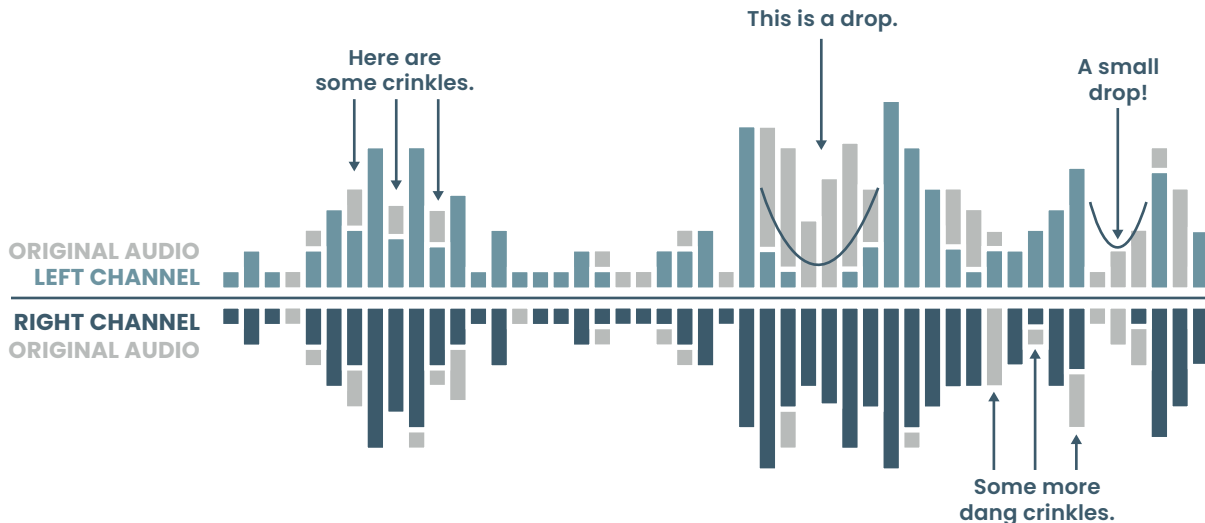
The way the crinkles and pops process the incoming sound, causing it to crumble and spike. This is the only part of **FAILURE** you can't turn off.

Try adjusting the various parts to get things to your liking.

Failure - Continued

FAILURE is responsible for the multi-layered stereo image you experience with **SPREAD** on. Its various effects manifest differently on the left and right channels, creating a moving stereo image. The drops have the most pronounced and abrupt effect, but you can bypass them to get more subtle deviation from the crinkles and pops.

A creative utility of **FAILURE** is that it can function as an unpredictable stereo splitter. Turn on the **SNAG BYP**, **SPREAD**, and **MISO** dip switches, and turn down the other knobs. Your signal will skitter randomly from left to right, but will otherwise sound clean.



AUX

Gen Loss has three different **AUX** effects (and one hidden favorite), for your performance needs.

Select your effect, press the **AUX** footswitch, and it's on. The **AUX** footswitch can be held down for a momentary effect, or tapped for standard on/off.

You can adjust how long it takes the **AUX** effects to set in using the hidden options (pg. 14).



STOP

A tape-stop effect that slows your wet signal to a rubbery halt.



FILTER

Bypasses the selected tape model, letting your signal pass through unfiltered.



FAIL

Maxes out aspects of the **FAILURE** knob, for the feeling of complete malfunction.

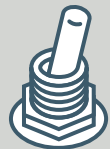


FREEZE

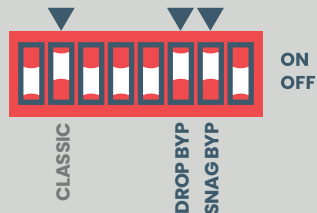
Back by popular demand, the hidden fourth **AUX** function: Freeze. *Tape machines don't do this, but who cares.* It's fine. This one is only available in **CLASSIC MODE**.

Freeze captures and holds the last-played sound indefinitely, which you can then process with Gen Loss' various effects.

To access **FREEZE**, set the **AUX** toggle to **FAIL** and turn on both the **DROP BYP** and **SNAG BYP** dip switches. And make sure you're in **CLASSIC MODE**.



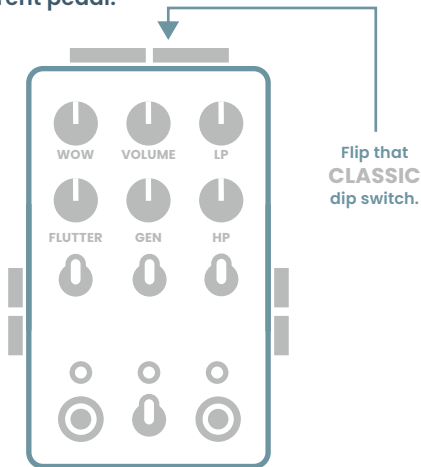
STOP FILTER FAIL
AUX



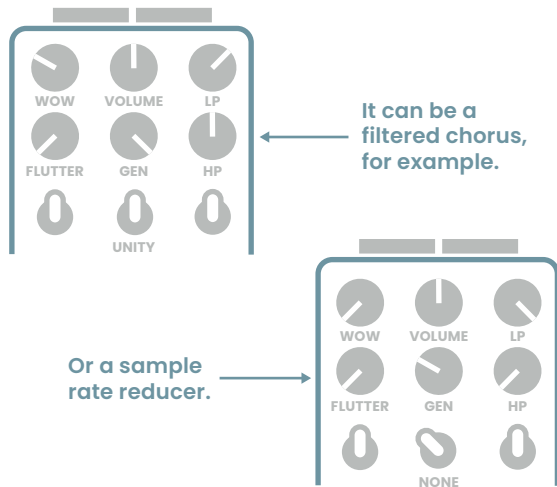
Classic Mode

CLASSIC MODE brings back the sound and features of the original CooperFX and Chase Bliss Generation Loss.

Simply flick the **CLASSIC** dip switch, and you've got a different pedal.



Many of the controls are the same, but they work quite differently behind the scenes. Just like **MKII**, **CLASSIC MODE** is a compilation of parts that can be isolated if you wish.



CLASSIC MODE also has its own way of creating a stereo image when the **SPREAD** dip switch is engaged. Here you get a smooth panning effect that moves in time with the **WOW** modulation.

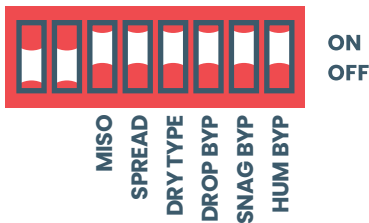
CLASSIC MODE is its own little world – a work of fiction. An imaginary tape machine, based on nothing in particular.

Maybe this is what you need.



Customize

The dark blue-labeled dip switches on top of Gen Loss allow you to configure it for your setup and fine-tune things to your liking.



MISO

Mono In, Stereo Out. For using Gen Loss to split a mono signal into a stereo image.

SPREAD

Engages unique stereo processing of the left and right channels. You'll get a different effect depending on the mode:

MKII: Introduces a malfunctioning stereo image created by the **FAILURE** knob.

CLASSIC MODE: Introduces a smooth panning effect created by the **WOW** modulation.

DRY TYPE

When engaged, all of the pedal's effects except **WOW** and **FLUTTER** will be applied to your dry signal. This makes it possible to create saturated, malfunctioning chorus effects. See the signal flow on pg. 44.

DROP BYPASS

Removes the drops (volume manipulation) from the effect of the **FAILURE** knob.

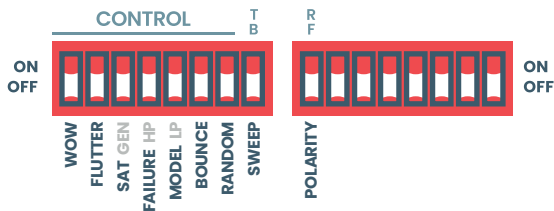
SNAG BYPASS

Removes the snags (pitch warping) from the effect of the **FAILURE** knob.

HUM BYPASS

Removes the mechanical noise from the effect of the **NOISE** toggle.

Ramping



Ramping gives you the ability to automate Gen Loss' knobs, either as a one-time movement (ramp) or continuous motion (bounce).

It's easier to get started with bounce, so let's do that. We're essentially going to modulate a knob.



1. Engage bounce.

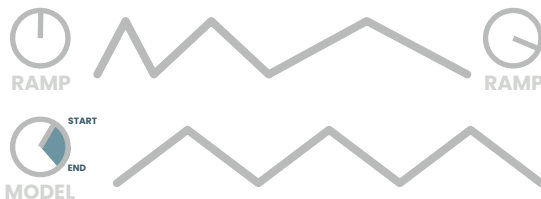
2. Choose which knob(s) you wish to control.



3. Choose the sweep.



4. Set the speed.



Now Gen Loss will steadily jump between different tape models. The position of the knob you're controlling is important, because it either sets the maximum or minimum point of the range (depending on the SWEEP setting).

By default, bounce uses a triangle wave.  But it can also be a random wave.  Use the RANDOM dip switch to choose.

Ramp is the same idea, but the movement only happens once when you turn the pedal on. Your chosen knob(s) rise or fall to your chosen position, then stay there. Useful for creating a wave of motion and activity when you first turn on Gen Loss.

Check out our Dip Switches 101 resource for a step-by-step on ramping.

Ramping - Ideas



TAPE HOPPER

 BOUNCE, MODEL, RANDOM

Use this setting for a sound similar to sample and hold, only each landing spot is a different tape machine. One moment you're hearing a camcorder, the next a reel-to-reel. Use the **MODEL** knob to narrow the range.



FILTER SWEEPS

 CLASSIC, BOUNCE, LP, SWEEP

CLASSIC MODE's filters are great targets for bouncing, to add a second level of modulation. It's more flexible to use the top **SWEEP** in this case so the filter doesn't sweep down to silence. Try setting the LP knob fairly high so the effect is subtle. Pairs well with a low sample rate.

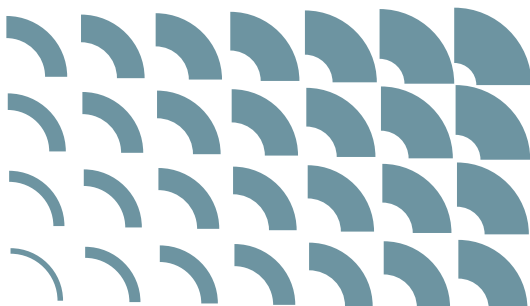


MAINTENANCE PHASE

 BOUNCE, FAILURE, RANDOM

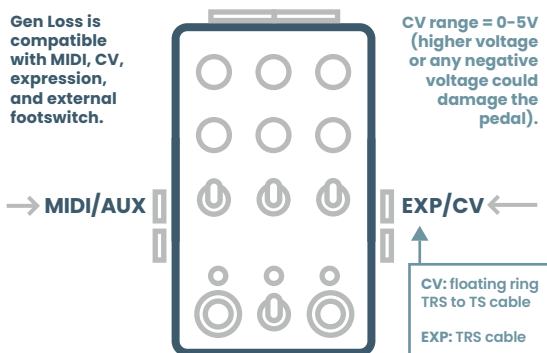
This setting randomly jumps to different **FAILURE** settings for more organic, ever-changing amounts of malfunction. Use the **FAILURE** knob to set the max possible amount. This will also mean the amount of stereo manipulation will shift over time if **SPREAD** is on.

You can still adjust **VOLUME** while ramping, just hold down the left footswitch and set things to your preference.



External Control

Gen Loss is compatible with MIDI, CV, expression, and external footswitch.

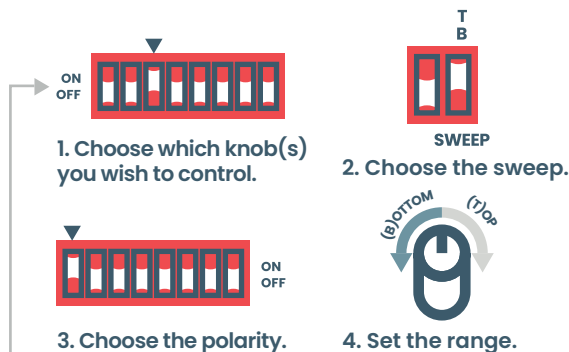


CV range = 0-5V (higher voltage or any negative voltage could damage the pedal).

CV and expression can be used to control Gen Loss' knobs.

MIDI lets you go deeper and control everything, including the hidden options and dip switches.

CV and expression are set up the same way as ramping using the dip switches on the top of the pedal. The pedal will simply detect a CV or expression signal when you plug it in, and hand over control.



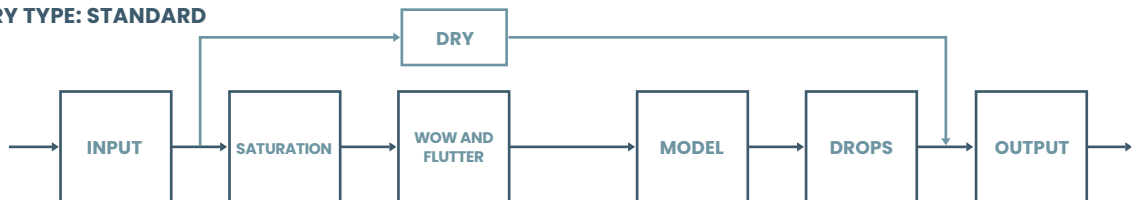
If you plug in a CV or expression signal but engage none of the knobs, you will have control over **VOLUME**.

MIDI requires a Chase Bliss Midibox to convert the signal to a 1/4" TRS jack. For details on getting MIDI going with Gen Loss, check out the MIDI manual.

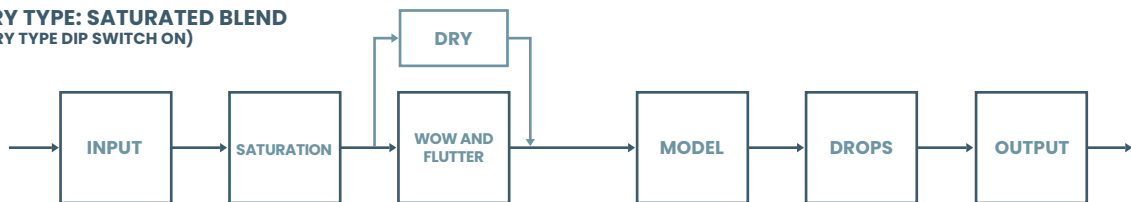
The MIDI jack can also be used to control the AUX footswitch with an external pedal. Useful for tabletop setups. Plug any normally-open momentary footswitch in and you're all set, it takes control automatically.

Signal Flow

DRY TYPE: STANDARD



DRY TYPE: SATURATED BLEND (DRY TYPE DIP SWITCH ON)



BYPASS OPTIONS

Standard, aka MISO off, DSP Bypass off

- True bypass on both channels.
- Analog dry through on both channels.

MISO on, DSP Bypass off

- Buffered bypass on left channel, Digital bypass on right channel.
- Analog dry through on left channel, digital through on right channel.

DSP Bypass on, MISO on or off

- Digital bypass on both channels.
- Digital through on both channels.

That's it.
Fail away.

Let us know if you have
any questions:
help@chasebliss.com

We're here
to help.

Enjoy.