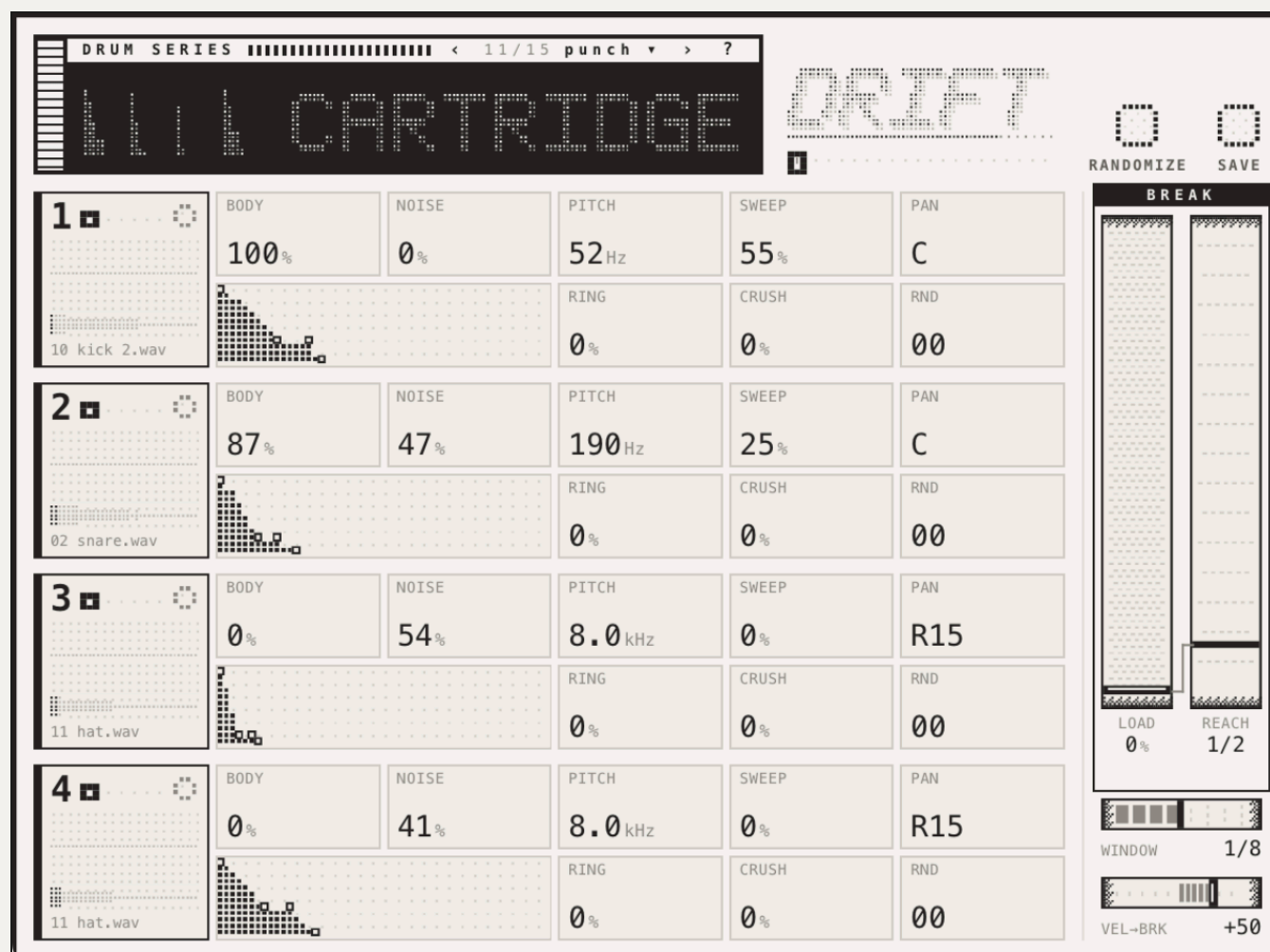


CARTRIDGE

manual

A glitch drum machine. Four drum voices play into a four-beat memory, and every hit can scramble it. Blocks of what you just played freeze, jump and reverse, on the grid, from whole beats down to buzz.

a keepsake plugin · VST3 / AU · macOS



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INSTALL

Open **Keepsake Cartridge.pkg** and follow the installer. **Customize** lets you skip a part:

part	installs to
VST3	/Library/Audio/Plug-Ins/VST3/Cartridge.vst3
Audio Unit	/Library/Audio/Plug-Ins/Components/Cartridge.component
Factory samples	/Library/Application Support/Keepsake/Cartridge, and your own kit folder, ~/Documents/Keepsake/Cartridge Kits

Rescan in your host. Cartridge is an instrument. It runs on macOS 11 or later, on Apple Silicon and Intel Macs.

Which version you have: ? → about cartridge shows the version and build, for example `cartridge 0.9.0 (40e54b3)` .
vst3. Put that line in any bug report. What changed in each version is in the changelog.

To uninstall, delete those three items.

🔓 Unlock

The first time you open Cartridge it asks for your license key and stays silent until it has one. Paste the key from your Gumroad receipt and press **UNLOCK** (or Return). Cartridge checks the key online and saves it.

The key is saved in `~/Library/Application Support/Keepsake/Licenses/Cartridge.license`. On a new Mac, enter the same key again. If a Mac can't go online, write to support@keepsakeplugins.com.

No key yet? Cartridge is at store.keepsakeplugins.com.

START HERE

1. Put Cartridge on a MIDI track. Cartridge is mapped to General MIDI by default: **voice 1 on C1 (36)**, the kick; **voice 2 on D1 (38)**, the snare; **voice 3 on F#1 (42)**, the closed hat; **voice 4 on A#1 (46)**, the open hat. To move a voice, see [MIDI notes](#).
2. Play a beat.
3. Raise **LOAD** (the left wheel, or the mod wheel). Every hit now scrambles the memory, with scramble length controlled by **WINDOW**. **REACH** (the right wheel) sets the size of the scrambled blocks.

Pull **LOAD** to zero to revert.

THE PANEL

The **label** at the top left shows the kit's four envelopes as they play, and the kit's name with its place in the list (11/15 punch). < **and** > step to the previous or next kit; click the name for the kit menu (see [Kits](#)). The label looks more worn the further **DRIFT** goes.

Top right is **DRIFT**, a lever, with the **RANDOMIZE** and **SAVE** buttons (see [DRIFT](#)). Below are the four lanes, and on the right the four **BREAK** wheels.

The ? beside the kit name is help:

- **take the tour**: eight stops around the panel, each with a card saying what it is and something to try. Click the card for the next stop; × leaves.
- **popup help**: while it's on, point at anything to see what it does and how to work it. Choose it again to turn it off.
- **default notes** and **learn voice 1–4**: which note plays each voice (see [MIDI notes](#)).
- **about cartridge**: the version and build.

MIDI notes

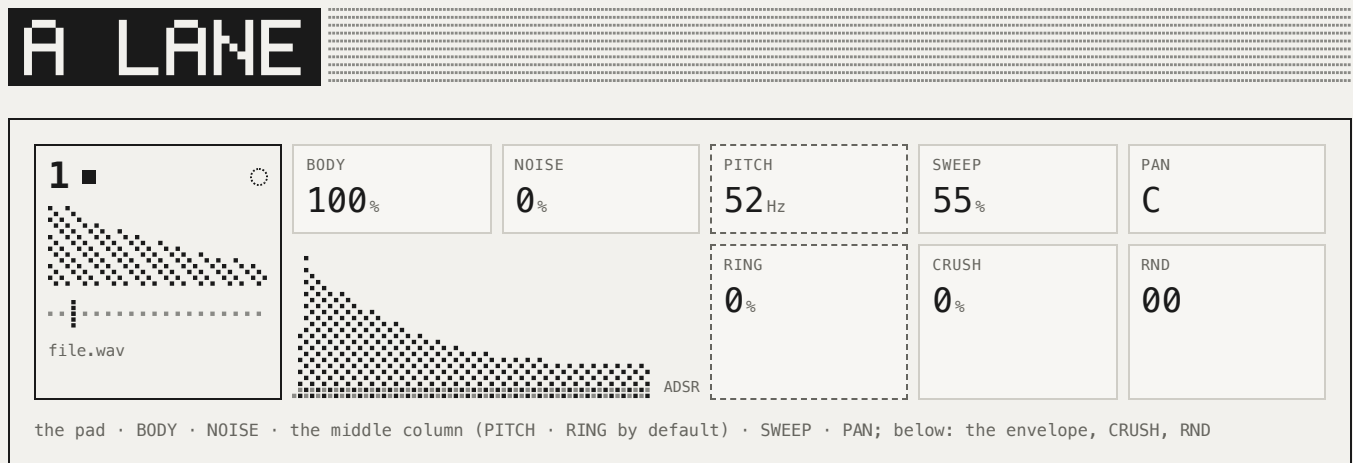
A new Cartridge plays voices 1–4 from **C1**, **D1**, **F#1** and **A#1** (36, 38, 42 and 46), General MIDI's kick, snare, closed hat and open hat.

To remap a voice, open ? and choose **learn voice**. Its pad number blinks and reads *play a note...*; the next note you play takes that voice, and plays it. Click anywhere on the panel to cancel. Each **learn voice** row shows the voice's note now. **default notes** resets.

The notes are saved with your song.

Hold shift for finer control, double-click resets controls.

The wheels and levers share one set of marks: **black** is happening right now (the memory scrambled, a window open, a button lit), **grey** is your setting, **pale** is the kit's share of a voice's DRIFT, and **checkered** means that part is being scrambled.



Each voice plays a short read of a sample (the click), plus a tone and one-bit noise shaped by its envelope.

The pad strikes when clicked, anywhere below its top row. The top row is the voice's own DRIFT lever and RANDOMIZE button. Below it, from top to bottom:

- the voice's **last hit**, inverted where the memory is playing it back wrong;
- the **source**, the sample the click is read from, with a mark at START;
- the sample's file name.

Click the **source** row to focus the sample: the lane's boxes switch to LEN, DIFFUSE and READ. Once it's focused, click or drag it to move START.

Load your own sound: right-click the pad, or drop a WAV, AIFF, FLAC, MP3 or Ogg file on it. Right-click opens on the pad's own file, or the folder you last loaded from; the first time, it opens on the factory samples that came with Cartridge.

- Anything longer than 2 seconds keeps the 2 seconds from its first sound, marked $\times$. To use a different part, crop it first and drop that.
- A file that has gone missing shows its name with a $?$, and the voice plays a built-in sound until you find the file.

The boxes. Drag up or down; shift-drag for fine; double-click the number to type one.

BODY	the tone's level
NOISE	the one-bit noise's level, separate from BODY, so a voice can be all noise
SWEEP	pitch envelope. Harder hits sweep further
CRUSH	bit crusher, down to 1 bit. Past about halfway it also lowers the sample rate
PAN	stereo pan
RND	random pan, new on every hit

The middle column changes to follow what you last touched:

you touched	it shows
anything else (the default)	PITCH · RING
SWEEP	PITCH · SW.DECAY
the source row	LEN · DIFFUSE, and SWEEP becomes READ
the front of the envelope	ATTACK · DECAY
the back of the envelope	TIME · RELEASE

Click any empty part of the panel to put every lane back to PITCH · RING.

PITCH	the tone's pitch, 10 Hz to 16 kHz
SW.DECAY	pitch envelope decay
RING	ring-modulates the tone with the sample (below)
LEN	how much of the sample each hit plays, 0.5–20 ms, and the length of the loop RING uses
DIFFUSE	randomizes START on every hit
READ	the sample's playback speed, 0.10–4× (below)

RING ring-modulates the tone with the sample. It listens only to whether the sample is above or below zero, and flips the tone wherever it's below, so a sample with a busy waveform chops the tone into a busy pattern. **0** is the dry tone and **100** is full ring mod; it's one continuous knob, and at **50** the dry tone and the ring mod are even. The sample RING listens to is a loop of LEN milliseconds from START, so with RING up, LEN against PITCH and BODY gives beating tones. At very low PITCH with RING high the tone barely moves, so what you hear is the sample's above/below-zero pattern itself: a buzzy one-bit copy of the sample.

READ is the sample's playback speed: above 1× higher and shorter, below 1× lower and longer. It's heard on the hits only: RING's loop always runs at the sample's own speed. Each voice starts at its own speed (the hat at 2.40×), so a sample you load may need READ at 1.00× to sound at its own pitch.

The centre is the envelope, drawn on a real time axis out to 4 seconds.

- Drag its corners sideways to change times, and up or down to change sustain.
- While you edit PITCH, SWEEP, CRUSH, RING or the source, it shows that setting's picture for about a second.

BREAK

Everything Cartridge plays goes into a memory four beats long (one bar of 4/4), at your song's tempo, and is played back out of it. Normally it comes back exactly as it went in. A hit can scramble **where** the memory is played back from, so blocks of what you just played repeat, jump or play backwards. Because the memory is locked to your host's beat grid, the mangling lands on the grid too.

The scrambling works on **blocks** of the memory, each a note value long: half a bar, a beat, an eighth, and down to 1/128 and beyond. When blocks of a size are scrambled, they repeat, swap with their neighbour or play backwards. Big blocks rearrange your beat; tiny ones turn it to buzz.

LOAD and REACH work as a pair, framed together as **BREAK**. REACH sets the smallest block size that gets scrambled; LOAD adds bigger sizes on top of it. The span under both wheels shows the sizes in play, for example **1/128–1/8**. It's blank while LOAD is at zero.

- **LOAD** is how badly each hit scrambles the memory, from not at all to every block size at once.
 - **Above 80%**, parts of the memory also stop recording and loop what they last held. REACH sets how big those parts are. At the very top nothing new gets in.
 - Grey shows your setting. While a window is open the wheel fills black over it, and drains as the window closes.
 - **The mod wheel (CC1) is mapped to LOAD by default** but can be remapped in your DAW.
- **REACH** is the smallest block size that gets scrambled, from tiny and buzzy at the top to whole beats at the bottom. The readout is the size as a note value: 1/2, 1/4, 1/8 and down to 1/128, then milliseconds. LOAD adds bigger sizes from there. **CC2 or CC11 adds to it by default**.
- **WINDOW** is how long each hit keeps the memory scrambled: a 1/64 note up to 4 beats, then ∞.
 - Short windows just chop the attack of each hit. Long ones smear a hit into the next. Dense playing stays mangled; sparse playing recovers between hits.
 - ∞ never closes, so LOAD mangles continuously, between hits as well as on them.
 - A hit can be replaced by what came before it: the memory scrambles the moment a hit lands, so the block it lands in may play back something you played earlier.
- **VEL→BRK** sets which hits mangle the most, by MIDI velocity.
 - **Right of centre**: high-velocity hits mangle the most; low-velocity hits barely touch the memory.
 - **Left of centre**: low-velocity hits mangle the most and high-velocity hits stay clean, so ghost notes and fills shatter.
 - **Centre**: velocity doesn't matter.

DRIFT AND RANDOMIZE

A randomizer you can always undo.

- **RANDOMIZE** picks new random settings for the whole kit (the button by DRIFT), or for one voice (the small button at the top of its pad). At DRIFT 0 it also slides DRIFT all the way, so you hear it at once.
- **DRIFT** slides from your kit toward those settings. The kit's DRIFT and each voice's own add up. **0 is always your kit, exactly**. Automate it and the kit changes across the song.
- **SAVE** makes what you hear the kit's new starting point and puts DRIFT back to 0.

KITS

Cartridge comes with 15 kits. < **and** > beside the kit's name step through them, and your own, in the menu's order; click the name for the whole list. They're also in your host's preset menu. Choosing a kit sets the four voices, their samples and the BREAK wheels. A new Cartridge starts on **punch**.

Each kit starts from its own drums. Some leave them plain, for you to mangle; others show one thing Cartridge can do to them.

kit	the drums	what's done to them
punch	A clean kick, snare, and closed and open hat	Nothing: turn up RING, CRUSH or LOAD
electro	A long boom, a high snap, a tick, a ringing blip	Nothing
sweeps	Every voice rises into its pitch	SWEEP below zero
am7	The four notes of A minor 7, held	Pure tones; hit all four for the chord
fmaj7	The four notes of F major 7, held	RING at 50
plucked	Guitar tuned in E	RING, in tune with each note
tin	High and metallic	CRUSH and RING
clicks	One click at four pitches	No noise at all
dialup probe	Everything from a modem sound	RING: the modem drives every tone
lil guy	Just the samples, slowed	BODY at 0
nicks	A kick, a snap, a click, a keys hit	A little BREAK: only the attacks stutter
backwards	Slow, low and dusty	BREAK smears hits backwards
stuck	The built-in sounds	BREAK at WINDOW always: lines stick and repeat
ghosts	Brushes and a guitar bass	VEL-BRK left: soft hits shatter
stutter	A deep sub, a clap, a modem tick, a ringing guitar	BREAK at 1/8

`save kit...` writes a `.cartkit` file to `~/Documents/Keepsake/Cartridge Kits`, with its four samples inside it, exactly as Cartridge plays them. Drop a `.cartkit` anywhere on the panel to load it. A kit is plain text: open one in any text editor to read its settings.

SEPARATE OUTS

Cartridge has five stereo outputs: **Main**, the whole kit, then **Voice 1–4**, one per voice. Each voice out carries that voice with its mangling, and the four add up to Main.