Rove Generation

PRESENTS

SONIC SWEEP 2

USER MANUAL

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1. Introduction

Sonic Sweep 2 is the next-generation console channel & bus processor inspired by the classic 8-bus console lineage. Three independent sweepable channels, a musical parallel/serial blend engine and deep analog modelling help you sculpt vibrant, mix-ready sound faster than ever.

Sonic Sweep 2 expands on the original plug-in with variable console noise, dual-resolution EQ, a refined low-cut network and an enhanced bus fader/mix section.

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2. Key features

- Tri-channel EQ strip with fully parametric Hi- & Lo-Mid bands (variable **Bandwidth 3 – 1/12 oct**), dedicated 12 kHz / 80 Hz shelves and a **75 Hz 18 dB/oct low-cut**.
- **Authentic analog behaviour**: input transformers, soft-clip fader amps and calibrated wide-band **console hiss** can be dialled in per taste.
- Parallel <> Serial engine: continuously morph between pure serial processing and true parallel summing with equal-power cross-fade.
- Variable EQ resolution: switchable **X2 Gain** (±30dB > ±30dB) and **X2 Freq** (1kHz > 18kHz) multipliers.
- Clip indicators on each channel output.
- Zero added latency and CPU-optimised biquadratic filters.
- Shared Hi/Lo shelves in parallel mode maintain phase-coherence across channels for cohesive tone.
- **Global Trim** with 20 ms slew ensures noise-free automation.

3. What's new in Version 2

Area	Sonic Sweep 1	Sonic Sweep 2
Global Trim	Static gain; -40 dB	Smoothed; ±40 dB
Console Noise	-	0–100 % variable & pink-filtered
EQ	3-band + HPF	5-band, dual-range, shared shelves
Lo-Mid Bandwidth	-	**3 – 1/12 oct continuous**
Routing	Serial only	Continuous Parallel<>Daisy
Low-Cut	18 dB/oct Butterworth	**18 dB/oct Chebyshev (75 Hz)**
Modelling	Basic clip	Multi-stage soft clip + noise drift

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4. Quick-start

1. Insert Sonic Sweep 2 on a group or master bus.
2. Set **GLOBAL TRIM** so peaks kiss 0 dBFS on the built-in meters.
3. Choose **PARALLEL<>DAISY BLEND**: Parallel for weight, Daisy (serial) for focus.
4. Engage **EQ IN** on each active channel. Sweep **HI MID FREQ** while boosting a few dB to locate and sweeten presence.
5. Adjust **LO MID BANDWIDTH** to carve or tighten the body, then add gentle saturation with **GAIN IN**; raise **CONSOLE NOISE** until the mix breathes.

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5. User interface

5.1 Global controls

Control	Range	Description
TRIM	-40 … +40 dB	Pre-processor gain, slewed (20 ms) to avoid zipper noise.
CONSOLE NOISE	0 … 100 %	Calibrated pink hiss derived from a classic 8-bus console spectrum.
EQ GAIN ×2	Off/On	Doubles boost/cut range to ±30 dB for surgical tasks.
EQ FREQ ×2	Off/On	Doubles frequency-sweep ceiling (e.g. 9 kHz ⟶ 18 kHz).

5.2 Channel strip (Ch 1 – 3)

- **GAIN IN** (-∞ … +40 dB) – Transformer drive & soft-clip.
- **EQ FLIP** – Swaps EQ before/after clipper for alternate colours.
- **HI MID GAIN/FREQ/BW** – 500 Hz – 18 kHz fully parametric band with **3 - 1/12 oct BW.**
- **LO MID GAIN/FREQ/BW** – 45 Hz – 3 kHz fully parametric band with **3 - 1/12 oct BW.**
- **HI SHELF GAIN** – ±15 dB @ 12 kHz.
- **LO SHELF GAIN** – ±15 dB @ 80 Hz.
- **LOW-CUT – 75 Hz 18 dB/oct Chebyshev** high-pass filter.
- **EQ IN** – Global bypass for the strip.
- **MUTE** – Hard mute pre-fader.
- **CHANNEL FADER** – Authentic ALPS-style D-taper (+10 dB to -∞).

5.3 Bus & Master section

Control	Range	Function
PARALLEL <> DAISY BLEND	0–100 %	Equal-power cross-fade between processing paths (0 % = parallel, 100 % = serial).
BUS FADER	+10 dB … -∞	Post-blend level trim with console taper.
MASTER MIX	0–100 %	Dry/Wet; squared law for finer low-blend resolution.

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6. Signal flow & processing modes

In Daisy mode channels are cascaded; in Parallel mode they sum post-strip. Shared shelves ensure a single set of 12 k/80 Hz tone controls is applied after the blend, avoiding combing.

7. Analog modelling details

7.1 Soft-clip amplifiers

Each **GAIN IN** and **CHANNEL FADER** stage employs a 3-pole arctangent shaper tuned to a +26 dBu headroom profile for natural breakup.

7.2 Console-style noise

Noise is generated as white → 1-pole six-stage pink filter → 15 kHz LPF, then modulated by three LFOs (0.3 Hz drift, 50/100 Hz PSU ripple) to emulate analog 'breath'.

7.3 EQ curves

All filters are 64-bit double-precision biquads. Hi/Lo shelves use √A-scaled coefficients. **Low-cut is a 3rd-order Chebyshev (18 dB/oct)** matching the console spec.

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8. Parameter reference

Below is the complete list of automatable parameters exposed by Sonic Sweep 2.
Channel parameters repeat for **Ch 1, 2 & 3**.

8.1 Global parameters

Control	Range	Default	Notes
Trim	-40 … +40 dB	0 dB	20 ms slew-smoothed
Console Noise	0 … 100 %	0 %	Pink-filtered hiss level
EQ Gain ×2	Off / On	Off	Doubles boost/cut span
EQ Freq ×2	Off / On	Off	Doubles sweep ceiling

8.2 Per-channel parameters

Control	Range	Default	Notes
Gain In	-∞ … +40 dB	0 dB	Transformer & clipper drive
EQ Flip	Off / On	Off	Places EQ pre/post clip
Hi-Mid Gain	-15 … +15 dB (±30 dB via ×2)	0 dB	
Hi-Mid Freq	500 Hz … 18 kHz (and ×2)	3 kHz	
Hi-Mid Q	0.1 … 3.0	2.0	
Lo-Mid Gain	-15 … +15 dB (±30 dB via ×2)	0 dB	
Lo-Mid Freq	45 Hz … 3 kHz (and ×2)	250 Hz	
Bandwidth	3 … 1/12 oct	2 oct	Continuous control
Hi Shelf Gain	-15 … +15 dB	0 dB	Fixed 12 kHz turnover
Lo Shelf Gain	-15 … +15 d		

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9. Tips & tricks

- Drive **GAIN IN** to +20 dB, back off **CHANNEL FADER** for punchy transformer growl.
- Use **EQ GAIN ×2** for precise notch cutting (-30 dB) when de-ringing snare tails.
- Dial **Lo-Mid Bandwidth** narrow (<0.5 oct) to surgically remove mud or wide (>2 oct) for musical body boosts.
- **High-Shelf Overdrive Trick** – Crank **HI SHELF** to +15 dB then push **GAIN IN**; the clipper folds back the boosted edge, creating a sharp notch right below 12 kHz that tames harsh cymbal fizz without extra EQ cuts.
- Blend at 40-60 % Parallel to fatten a drum bus while retaining transient focus.

For more resources, updates, and preset packs, visit ravegeneration.io. Dive deeper into the world of audio manipulation and discover new ways to bring your tracks to life.

10. Installation & troubleshooting

10.1 System requirements

Before installing Rave Generation: Sonic Sweep 2, please ensure that your system meets the following requirements:

- Operating system:
  - macOS 10.13 or later
  - Windows 10 or later
- Software: Digital Audio Workstation (DAW) that supports VST3, or AU plugins (e.g., Ableton Live, Logic Pro, Studio One, FL Studio, etc.).
- Processor: Intel Core i5 (or equivalent) or higher for optimal performance.
- RAM: 4 GB minimum (8 GB or more recommended for larger projects).
- Disk Space: 200 MB of free disk space for installation.

10.2 Installation process

1. Download the installation file from the official website or the platform where you purchased the plugin.
2. Run the installer and follow the on-screen instructions.
3. Launch your DAW and locate Rave Generation: Sonic Sweep 2 in your plugin list.
4. If prompted, activate the plugin using the license key provided upon purchase.

10.3 Troubleshooting

If you encounter any issues during installation or operation, try the following solutions:

- Plugin not showing in DAW: Ensure that the plugin folder path is correctly set within your DAW's plugin manager.
- Activation issues: Double-check your internet connection and ensure you are entering the correct license key.