Rave Generation

PRESENTS

RAVE STATION 2

USER MANUAL

Introduction

RaveStation 2 draws inspiration from iconic workstations, samplers, and effects of the mid-90s. Featuring a 16-voice polyphonic engine with filter modeling and modulation, it offers a vast array of sounds, effect and synthesis parameters designed to capture the essence of electronic music production from this era. This makes it ideal for a wide range of electronic dance music genres, particularly excelling in styles like Rave, Techno, mid-90s Hardcore, Eurodance, House, and Old School.

600+ Sounds

RaveStation 2 includes over 600 preset sounds, all tuned to key with multi-sample support. Sounds are organized into the following categories:

- BASS - Deep basses, sub basses, and bass leads
- FX - Risers, impacts, sweeps, and special effects
- HOOVER - Classic rave hoovers and reeses
- MULTI - Breakbeat, Vocal, and Drum kits
- ORGAN - Organs and keyboard sounds
- STAB 1 - Classic stabs and chord hits
- STAB 2 - Additional stabs and chord variations
- SYNTH - Leads, pads, plucks, and synthesizer sounds

Key Features

- 16-voice polyphony with intelligent voice allocation
- 9 filter types including Roland, Moog, and TB-303 emulations
- Three ADSR envelopes (Amp, Filter, Pitch)
- LFO with 8 waveforms, 9 destinations, and tempo sync
- JP-8000 Supersaw unison and symmetric detune
- 14-pattern SH-101 style arpeggiator
- Chorus (4 modes), Delay, and Reverb with ducking
- Stereo width control and Bass/Treble tone shaping
- Full preset management via toolbar browser

User Interface Tips

RaveStation 2 uses a streamlined interface where sounds are selected via the preset browser in the menu bar. The main panel provides direct access to all synthesis and effect parameters.

Precise Movements

Holding down the Shift key while adjusting a knob will enable you to make precise movements. This allows for finer control over the audio processing parameters.

Reset Knob

Right-clicking a knob will reset its value. This action restores the knob or fader to its default or initial position. Alt+click also works (macOS: Option+click).

Adjust Value

Double-clicking a knob allows you to adjust its value directly by typing. This provides a quick and intuitive way to fine-tune parameters with precision.

Undo/Redo

Access Undo and Redo from the menu bar to easily correct or reapply changes. Undo reverses the last adjustment, while Redo restores it.

GUI Opacity

From the menu bar, you can adjust the GUI Opacity from 0% to 100%. This control allows for varying the transparency of the plugin interface, offering better visibility of underlying work areas.

Resize

The interface can be resized from 70% to 200% of its original size via the menu bar. This feature accommodates different screen sizes and resolutions.

Preset Menu

Accessible from the menu bar, the Preset Menu provides a comprehensive interface for browsing, loading, and selecting presets. Users can also Load/Save and Copy/Paste presets.

Filter Section

RaveStation 2 features a comprehensive filter section with 9 distinct filter types, each offering unique tonal characteristics. The filter can be modulated by the Filter Envelope, LFO, velocity, and key track.

Filter Types

LP Clean (12 dB/oct)

A transparent 2-pole lowpass filter suitable for gentle frequency shaping without coloration.

LP Roland 24 (24 dB/oct)

Inspired by the Roland IR3109 filter chip. Two cascaded 12 dB stages create a warm, punchy 24 dB/oct response with smooth resonance.

LP Moog 24 (24 dB/oct)

Transistor ladder filter emulation with the classic Moog sound. Features nonlinear feedback for rich harmonics and musical self-oscillation at high resonance.

HP SVF (12 dB/oct)

State Variable highpass filter. Excellent for removing low-end mud or creating thin, cutting textures.

BP SVF (12 dB/oct)

State Variable bandpass filter. Perfect for telephone effects, wah-like sweeps, or isolating frequency ranges.

Peak

Resonant peak filter that boosts a narrow frequency band. Great for adding presence or creating formant-like effects.

Notch

Rejects a narrow frequency band while passing others. Useful for removing unwanted frequencies or phaser-like effects.

LP FM 12 (12 dB/oct)

Lowpass filter with audio-rate frequency modulation. The Drive control affects FM depth, creating dynamic harmonic content that responds to the input signal.

LP 303 (24 dB/oct)

Authentic TB-303 diode ladder filter emulation. Features the distinctive 303 squelch and acidic resonance character with 150 Hz feedback highpass.

Filter Parameters

Parameter	Range	Default	Description
Freq (Cutoff)	0-100%	100%	Filter cutoff frequency (20 Hz to 20 kHz exponential)
Reso (Resonance)	0-99%	0%	Filter resonance/Q. Higher values create peaks at cutoff
HPF (HPF Cutoff)	0-100%	0%	Highpass filter cutoff (8 Hz to 5 kHz). Jupiter-8 style
Type (Filter Type)	9 types	LP Clean	Select filter algorithm (see descriptions above)
Drive	0-100%	0%	Filter saturation/overdrive amount
Vel Follow (VCF Velocity)	-100 to +100%	0%	Velocity modulation of filter cutoff
Drive Position	Post/Pre	Post	Apply drive before or after filter
Key Track	-100 to +100%	0%	Filter tracking of keyboard pitch (Roland style)

Amp Envelope

The Amp Envelope controls the volume contour of each voice from note-on to note-off and beyond. It shapes how the sound fades in, sustains, and releases.

Parameters

Parameter	Range	Default	Description
Attack	0-1000	0	Time for volume to rise from zero to full (1ms to 2s)
Decay	0-1000	1000	Time to fall from full level to sustain level (1ms to 2s)
Sustain	0-100%	100%	Volume level held while key is pressed
Release	0-1000	0	Time for volume to fade after key release (1ms to 5s)

Filter Envelope

The Filter Envelope modulates the filter cutoff frequency over time, adding movement and expression to the sound. The envelope amount can be positive or negative.

Parameters

Parameter	Range	Default	Description
Attack	0-1000	0	Time for envelope to rise to peak (1ms to 2s)
Decay	0-1000	100	Time to fall from peak to sustain level (1ms to 2s)
Sustain	0-100%	0%	Envelope level held while key is pressed
Release	0-1000	50	Time for envelope to fall after key release (1ms to 5s)
Env Amount	-100 to +100%	0%	Depth and direction of filter modulation

Pitch Envelope

The Pitch Envelope provides time-varying pitch modulation for each voice. Use it for pitch sweeps, attack transients, or subtle pitch drift effects.

Parameters

Parameter	Range	Default	Description
Attack	0-1000	0	Time for envelope to rise to peak (1ms to 2s)
Decay	0-1000	100	Time to fall from peak to sustain level (1ms to 2s)
Sustain	0-100%	0%	Envelope level held while key is pressed
Release	0-1000	50	Time for envelope to fall after key release (1ms to 5s)
Pitch Depth	-48 to +48 st	0 st	Maximum pitch deviation in semitones

LFO

The Low Frequency Oscillator provides cyclic modulation for creating vibrato, tremolo, filter wobbles, and other time-varying effects. It supports tempo sync and fade-in/fade-out.

Waveforms

- Sine - Smooth, rounded modulation
- Triangle - Linear rise and fall
- Square - Abrupt on/off switching
- Saw Up - Rising ramp
- Saw Down - Falling ramp
- Random - Smoothly interpolated random values
- S&H - Sample & Hold (stepped random)
- Triple Peak - Nord Lead 3 style (fundamental + 3rd harmonic)

Destinations

- Off - LFO disabled
- Filter - Modulates filter cutoff (wah/wobble)
- Pitch - Modulates pitch (vibrato)
- Pan - Modulates stereo position (auto-pan)
- Amp - Modulates volume (tremolo)
- HPF - Modulates highpass filter cutoff
- Resonance - Modulates filter resonance
- Drive - Modulates filter drive amount
- VCF Env Amt - Modulates filter envelope depth

Parameters

Parameter	Range	Default	Description
Type (Waveform)	8 types	Sine	LFO wave shape
LFO Dest (Destination)	9 targets	Off	Modulation target
Rate	0.01-106 Hz	2 Hz	LFO speed (when not synced)
LFO Sync (Sync Division)	24 values	1/2	Tempo-synced rate division
Depth	0-100%	50%	Modulation intensity
Fade	-5 to +5 s	0 s	Positive: fade in. Negative: fade out

Unison & Detune

RaveStation 2 features two independent systems for creating thick, wide sounds: Supersaw-style Unison and Symmetric Detune.

Unison (Supersaw)

When set to 7 voices, it uses the authentic JP-8000 frequency ratios and detune curve. Other voice counts (2-6, 8-9) use a symmetric Hypersaw algorithm.

Parameter	Range	Default	Description
Voices	1-9	1	Number of unison voices. 7 = authentic JP-8000
Spread	0-100%	10%	Detune spread between voices
Mix	0-100%	75%	Balance between center and detuned voices

Detune (Symmetric)

Adds symmetrically detuned copies of the signal for classic chorus-like thickening without the modulation. Useful for pads and leads.

Parameter	Range	Default	Description
Voices	1-9	5	Number of detune voices
Amount	0-700 cents	20 ct	Detune spread in cents
Mix	0-100%	0%	Blend between dry and detuned signal

Effects

Chorus

Four distinct chorus algorithms for adding width and movement:

- CE3 - Subtle, slow modulation inspired by Boss CE-3
- JP8 - JP-8000 style, optimized for Supersaw sounds
- AJ2-S / AJ2-M - Alpha Juno 2 Standard with opposite-phase LFOs
- AJ2-M - Alpha Juno 2 Matched with same-phase + polarity inversion

Parameter	Range	Default	Description
Mode	4 types	JP8	Chorus algorithm
Rate	0-100%	50%	Modulation speed
Depth	0-100%	100%	Modulation intensity
Mix	0-100%	0%	Wet/dry balance
Tone	0-100%	50%	Brightness of chorus signal

Delay Ping-pong stereo delay with tempo sync and tone shaping.

Parameter	Range	Default	Description
Time	1-2000 ms	375 ms	Delay time (when not synced)
Delay Sync (Sync Division)	24 values	1/2	Tempo-synced delay time
Feedback	0-100%	50%	Amount of signal fed back
Tone	500-15000 Hz	8000 Hz	Lowpass filter on delay signal
Mix	0-100%	0%	Wet/dry balance

Reverb Lush algorithmic reverb with pre-delay and sidechain ducking.

Parameter	Range	Default	Description
Pre-Delay	0-250 ms	125 ms	Initial delay before reverb onset
Decay	0.01-20 s	6 s	Reverb tail length
Damping	0-100%	50%	High frequency absorption
Mix	0-100%	0%	Wet/dry balance
Duck Amount	0-100%	0%	Sidechain compression from dry signal
Duck Time	10-500 ms	100 ms	Ducking recovery time

Arpeggiator

The SH-101 inspired arpeggiator offers 14 patterns including octave modes and wrapped polyrhythms for complex sequences.

Arpeggio Patterns

Pattern	Description
Off	Arpeggiator disabled
Up	Ascending through held notes (1 octave)
Down	Descending through held notes (1 octave)
Up&Down	Ascending then descending (1 octave)
Down&Up	Descending then ascending (1 octave)
Up 2oct	Ascending through 2 octaves
Down 2oct	Descending through 2 octaves
Up&Down 2oct	Up then down through 2 octaves
Down&Up 2oct	Down then up through 2 octaves
Up W3	Ascending with wrap every 3 steps
Up W4	Ascending with wrap every 4 steps
Down W4	Descending with wrap every 4 steps
Up&Down W5	Up/down with wrap every 5 steps
Down 2oct W6	Down 2 octaves with wrap every 6 steps

Parameters

Parameter	Range	Default	Description
Type	14 patterns	Off	Arpeggio pattern selection
Step	9 divisions	1/16	Note division (1/4, 1/4T, 1/4D, 1/8, 1/8T, 1/8D, 1/16, 1/16T, 1/16D)
Gate	1-100%	80%	Note length as percentage of step

Performance Controls

Voice Mode

Parameter	Range	Default	Description
V Mode (Voice Mode)	Poly/Mono	Poly	Polyphonic or monophonic operation
Portamento	0-0.1 s	0 s	Glide time between notes
P Mode (Porta Mode)	Always/Legato	Always	Legato: glide only on overlapping notes

Stereo & Tone

Parameter	Range	Default	Description
Spread (Pan Spread)	0-100%	0%	Random pan offset per voice
Width (Stereo Width)	0-200%	100%	Stereo field width (0=mono, 200=extra wide)
Bass	-15 to +15 dB	0 dB	Low shelf EQ at 120 Hz
Mid	-15 to +15 dB	0 dB	Peak EQ at 1.5 kHz
Treble	-15 to +15 dB	0 dB	High shelf EQ at 3.5 kHz

Output

Parameter	Range	Default	Description
Level (Master)	-60 to +12 dB	0 dB	Master output level
PB Range	0-24 st	12 st	Pitch bend wheel range in semitones
Trsp (Transpose)	-24 to +24 st	0 st	Global pitch offset
Fine (Fine Tune)	-100 to +100 ct	0 ct	Fine pitch adjustment in cents
Vel Sens (Velocity Sens)	0-100%	0%	Velocity to volume sensitivity

Installation

System Requirements

- Windows 10/11 (64-bit) or macOS 10.13+
- VST3 or AU compatible DAW
- 8 GB RAM minimum
- 500 MB disk space

Plugin Formats

RaveStation 2 is available in VST3 and AU formats:

- VST3 - Use this format for most DAWs (Ableton Live, FL Studio, Cubase, Bitwig, Studio One, Reaper, etc.)
- AU (Audio Unit) - Use this format for Logic Pro only

If you are using Logic Pro, install the AU version. For all other DAWs, use the VST3 version.

Support

For technical support, updates, and additional information:

Website: ravegeneration.io

Email: support@ravegeneration.io