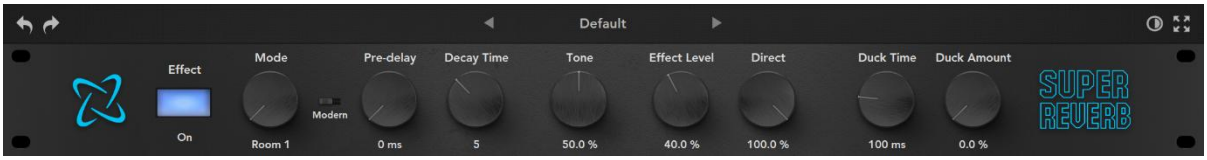
SUPER REVERB

Digital Reverb



User Manual

Overview

Super Reverb is a digital reverb processor emulating the classic Boss RRV-10 rack unit from 1987. It features 9 authentic reverb algorithms including rooms, halls, plates, multi-tap delays, and gated reverb. Enhanced with modern features like pre-delay, input-driven ducking, and a switchable vintage analog signal chain for professional mixing applications.

Signal Flow

Modern mode: Input → Tone EQ → Pre-delay → Reverb Algorithm → Ducking → Mix → Output

Vintage mode: Input → Tone EQ → Pre-emphasis → Compressor → Pre-delay → Reverb → Expander → De-emphasis → Ducking → Mix → Output

Main Controls

Parameter	Description
Effect	Master bypass switch (Off/On). When Off, the plugin passes dry signal only.
Mode	Selects one of 9 reverb algorithms. See Reverb Modes section for details.
Character	**Modern:** Clean digital reverb core only. **Vintage:** Adds authentic NE572 compander and pre/de-emphasis circuits as found in the original hardware. Subtle but authentic coloration.
Pre-delay	Delay time before reverb begins (0-250ms). Adds separation between dry signal and reverb tail. Classic studio technique for clarity.
Decay Time	Length of the reverb tail (0-15), ranging from approximately 0.2 to 10 seconds. The actual decay character varies by mode.
Tone	Adjusts the tonal character of the reverb (±10dB tilt EQ at 340Hz-2.7kHz). Lower values are darker and warmer, higher values are brighter.
Effect Level	Volume of the wet/reverb signal (0-100%). Controls how much reverb is added to the mix.
Direct	Volume of the dry/direct signal (0-100%). Set to 0% for 100% wet, or blend with Effect Level for parallel processing.

Ducking Controls

Ducking automatically reduces the reverb level when input signal is present, then lets it swell back during quieter moments. This keeps the mix clean and prevents reverb from masking the source.

Parameter	Description
Duck Time	Release time for the reverb to return after ducking (10-500ms). Shorter times = reverb comes back quickly. Longer times = smoother, more gradual swell.
Duck Amount	Intensity of ducking effect (0-100%). At 0%, ducking is disabled. Higher values duck the reverb more aggressively when input is present.

Reverb Modes

Room 1 (Small) & Room 2 (Large)
Small to medium room simulations. Room 1 is tighter and more intimate, Room 2 has slightly more diffusion and space. Great for drums, guitars, and adding subtle ambience.

Hall 1 (Small) & Hall 2 (Large)
Concert hall simulations. Hall 1 is more classic and smooth, Hall 2 has a larger character with modified early reflections. Ideal for vocals, orchestral instruments, and creating depth.

Plate 1 & Plate 2
Classic plate reverb emulations with dense, bright character. Plate 1 is more traditional, Plate 2 offers variation. Perfect for vocals, snare drums, and adding shimmer.

Multi Tap 1 (Delay) & Multi Tap 2 (Reverse)
Multi-tap delay/reverb hybrids creating rhythmic spatial effects. M Tap 1 produces forward delays, M Tap 2 creates reverse-style textures. Great for complex, evolving sounds.

Gated Reverb
Classic 80s gated reverb effect. The reverb tail is abruptly cut off, creating the iconic punchy sound popularized on drums in the 1980s. Decay Time controls the gate length.

Quick Start

Subtle room ambience: Room 1, Decay 3-5, Effect Level 30%, Direct 100%

Lush vocal hall: Hall 1, Decay 8-10, Pre-delay 30-50ms, Effect Level 40%

Bright plate for snare: Plate 1, Decay 5-7, Tone high, Effect Level 50%

80s gated drums: Gated mode, Decay 4-6, Effect Level 60-80%

Vintage character: Set Character to Vintage for authentic 1987 analog coloration

Clean mix with ducking: Any mode, Duck Amount 50-70%, Duck Time 100-200ms

100% wet for send/return: Direct 0%, Effect Level 100%

Technical Notes

Super Reverb uses authentic HG61H20R36F gate array emulation based on the original 12-bit / 31.25kHz hardware from 1987. The reverb engine processes in stereo with true stereo output.

Vintage mode emulation is based on analysis of the original RRV-10 service manual schematics, featuring:

- NE572 compander circuit (compressor before reverb, expander after)
- Pre-emphasis and de-emphasis filters for authentic analog character

Reverb engine based on mt32emu/BossEmu by Dean Beeler, Jerome Fisher, Sergey V. Mikayev (LGPL 2.1).

Support

For technical support, updates, and additional information:
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