

WESTFINGA REVALVERB

User Manual & Technical Documentation

Welcome to the world of the **ReValVerb "Full Tubes" 3U**. This handcrafted, pure tube and spring reverberation unit has been meticulously designed to deliver the classic warmth, richness, and depth of the legendary "Reggae Dub" sound, while effortlessly adapting to a wide variety of modern studio audio sources.

1. Front Panel: Controls & Features

Light & Switch ON/OFF

- **Switch:** Powers the unit ON or OFF.
- **Light:** Red mains power LED indicator.
- *Pro Tip:* Always power off the machine when not in use to significantly maximize the overall operational lifespan of the vacuum tubes.

Toggle Bias

Slightly alters the internal tube behavior by switching the DC cathode resistance between 1K and 2K. This control allows you to either soften or harden the transient response and character of the reverb depending on the nature of the audio source you are processing.

Toggle Boost

Activates or deactivates the bypass capacitors on the tube cathodes.

- **OFF (Lower Position):** Provides a smoother, sweeter, and more linear frequency response.
- **ON (Upper Position):** Applies a distinct boost across all frequencies, delivering a punchier, more aggressive, and highly dynamic rendering.

Pot Master

Controls the overall output volume of the reverb unit. This stage is driven by a premium 12AU7 tube output circuit and a dedicated output transformer, routing directly to the rear panel TRS jack output.

Recommendation: When connecting to an analog mixing console, the optimal sweet spot for gain staging usually sits between halfway (1/2) and three-quarters (3/4) of the maximum volume.

HPF OUT 5P (High-Pass Filter - Output)

A 5-position stepped passive rotary switch acting directly on the outgoing reverberated signal.

- **Position 1 (Far Left):** Full frequency bandwidth (Filter bypassed).
- **Positions 2 to 5:** Progressive high-pass filtering (ranging from 100 Hz up to 400 Hz) to sculpt and clean up the low-end texture of your reverb.
- *Note:* Subtle audible "pops" are completely normal and expected when clicking through the steps. Therefore, it is not recommended to manipulate this dial as an active effect during "live Dub" mixing performances.

HPF IN 5P (High-Pass Filter - Input)

A 5-position high-pass filter acting on the wet signal sent *directly into* the spring tank. **Its layout and operation are intentionally reversed.**

- **Position 1 (Far Left):** This sends the *least amount of bass* into the tank. Removing the low frequencies allows you to drive the springs much harder and more violently without muddiness.
- **Moving Right (Positions 2 to 5):** Progressively reintroduces low-frequency weight into the spring tank according to your taste.
- *Designer's Insight:* The IN and OUT filters are highly interactive. If you inject heavy bass into the tank input (HPF IN turned to the right), it is often wise to cut some bass at the output stage (HPF OUT). A great baseline setting to start with is setting the **HPF IN to Position 2** and the **HPF OUT to Position 3 or 4**. Feel free to complement this with your mixing desk's channel EQ.

Pot Line IN

Adjusts the input gain of the signal coming from your mixing console's Aux Send. For optimal drive, it is generally set to 3/4 or fully maximized.

Pot Dwell

A crucial control in the gain chain: it regulates the gain of the input stage right before the signal hits the large power tube (6V6GT), which is solely responsible for physically driving and vibrating the spring tank's internal coils.

Toggle Comp & Comp Lamp (Optical Tube Limiter)

- **Switch to the Left:** Compressor/Limiter is OFF.
- **Switch to the Right:** Compressor/Limiter is ON.

This unique tube-driven limiter utilizes an internal bulb to protect the spring tank from excessive peaks. When the indicator bulb glows bright red on the front panel, it indicates that you are driving the tank very hard. It reacts beautifully to heavy snare drum cracks, sharp "Riddim skanks", or heavy low-end sub drops injected into the unit. This option is perfect for smoothing out wild transients.

Maintenance Note: The indicator bulb (6.3V 0.125A) is highly reliable and lasts for years without replacement. If you experience a complete loss of audio signal **ONLY** when the switch is set to the ON position, the bulb has finally burned out. To replace it, simply unscrew the front lens cover. (The designer has never had to replace one over years of heavy use).

RCA Connections (To/From Reverb Tank)

- **RCA IN (Top Port):** Receives the return signal coming out of the Reverb Tank (Tank OUT).
- **RCA OUT (Bottom Port):** Sends the driven audio signal into the Reverb Tank input (Tank IN).

2. Rear Panel Connections

- **Upper TRS Jack (Top):** Audio Input (Line Level Signal)
- **Lower TRS Jack (Bottom):** Audio Output (Line Level Signal)

3. Critical Safety Precautions (READ CAREFULLY)

HIGH VOLTAGE DANGER: The interior of this chassis contains lethal operating voltages (up to 330V DC). **NEVER** remove the protective top cover/grille while the unit is connected to the wall outlet. If internal maintenance or tube inspection is required, **ALWAYS** unplug the mains power cable completely and **wait at least 10 minutes** to allow the high-voltage filter capacitors to fully and safely discharge.

Tank & RCA Handling: Never reverse or cross the RCA cables. Never connect or disconnect the RCA lines or the spring tank while the reverb unit is powered ON. Always turn the unit completely off before swapping or servicing the spring tank. A safety circuit is integrated, but utmost vigilance is highly advised.

Tube Longevity: Tube reference designations are clearly printed directly onto the internal motherboard. Under normal operating conditions, high-quality vacuum tubes will last a very long time before requiring replacement. Always turn off the device when not in studio use to prevent premature aging of the filaments.

4. Operating Guide & Gain Staging

According to extensive user and studio feedback, the ReValVerb is recognized as one of the quietest tube-and-spring hardware reverbs on the market. If you encounter any noticeable background "hiss" or noise floor issues, it almost always indicates improper gain staging (typically an over-amplified input stage). Managing your volume structures carefully will yield pristine results.

Recommended Hardware Baseline Setup

- **Pot Line IN:** Set nearly to maximum.
- **Pot Dwell:** Set between 1/4 and 1/2 of maximum (avoids over-saturating the 6V6GT driver tube).
- **Pot Master:** Set between 1/2 and 3/4.
- **Toggle Boost:** Adjust freely (ON/OFF) depending on the desired harmonic bite and musical genre.

If you have any doubts, setup issues, or technical questions, please do not hesitate to reach out directly:

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