Bloom Infinity Series | Limbo Reverb Effects Pedal

User Manual

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1. Introduction

Thank you for choosing the Limbo Reverb by Klowra. Limbo Reverb is a high-performance stereo reverb pedal with nine studio-grade reverb algorithms. From realistic physical spaces to classic plate and spring emulations—and even surreal, atmospheric textures—Limbo delivers a broad sonic palette grounded in high-quality algorithmic design. With carefully crafted open-parameter controls and a wide range of dynamic interaction options, it offers a fresh experience filled with boundless creative potential.

With Bloom Infinity Series-exclusive Ramp function and Freeze & Infinity modes, Limbo Reverb empowers you to shape rich, expressive tones—especially when paired with an expression pedal or footswitch. With Analog Dry-Through, selectable True Bypass or Buffered Bypass, and multiple stereo output modes, Limbo ensures tonal purity and flexibility across a wide range of setups.

2. Highlights

- ***Bloom Infinity* Series -** Original artist hand-painted silkscreen artwork, with individual model stories and concepts, all strung together into a cohesive product line.
- **9 Studio-Quality Reverb Types** - From pristine studio reverbs to hazy, vibe-rich effects, including a unique tide-like spatial reverb, *Limbo* unlocks dreamy textures that help you craft a genre-defying sonic experience.
- **Freeze & Infinity** - Freeze & Infinity lets sound sustain without decay, perfect for creating surreal atmospheres or freezing a moment in time.
- **Ramp** - The Ramp function provides linear parameter variation, controlling the fading back and forth between settings to create a dynamic, evolving effect.
- **External Control** - You can use an external TS/TRS footswitch and expression pedal for multifunctional continuous control.
- **Analog Dry Through** - Keeps the dry signal analog, never converting it to digital, while mixing with the wet signal.
- **Multiple Stereo Outputs** - Dry/Wet Separation and True Stereo Outputs.
- **Bypass Modes** - Switchable True Bypass(trail off) and Buffered Bypass(trail on), with Analog Dry Through.
- ***WildSeed* Engine** - Class-leading sound quality with 24-bit AD/DA and 32-bit DSP floating-point processing.
- **Material** - Made from sturdy aluminum alloy, this pedal is designed to withstand the rigors of daily use.

3. Knobs and Switches

DECAY
Adjust the duration of the reverberated. Go from only the tight short reflection at minimum, to long late reverberation with large space size.

BRIGHT
Adjust the high frequencies within the wet signal， with the darken BRIGHT at minimum and brighten BRIGHT at maximum.

MIX
Controls the mix between the dry and wet signals. At the minimum, it outputs full dry signal; at the maximum, it outputs full wet signal with no dry signal. A 50/50 mix occurs around 2 o'clock on the knob.

REVERB SELECT

HALL - A versatile medium-hall reverb that scales from realistic concert venues to surreal, otherworldly spaces. Perfect for adding depth, spaciousness, and air to your tone.

CHURCH - A cathedral-style reverb with rich, sacred resonance. Compared to HALL, this mode delivers a grander tone and more pronounced ambience. Parameters let you travel from the intimacy of a confession booth to the soaring expanse of Gothic vaults—or venture into otherworldly dimensions.

ROOM - A natural-sounding reverb with softer decay, simulating the wall absorption of a medium-sized exhibition hall. More subtle and controlled than HALL, this mode ranges from tight studio reflections to spacious, cavern-like environments.

SPRING - A spring reverb using physical modeling tech with three virtual springs that emulate classic spring tank circuits. The **Texture** knob adjusts both reverb tail modulation and spring drive (DWELL). Turning it clockwise brightens the sound. Lower settings suit vintage amp lovers; crank it up for surf-rock vibes.

PLATE - Modeled after the iconic EMT 140, this plate reverb delivers a fast response and dense, silky texture. From smooth diffusion and rich vintage warmth to expansive, experimental tails, this mode adapts easily to both classic and modern sound design.

SWELL - A soft, dreamy pad effect with a faded attack and gradual volume swell. Higher **Texture** boosts tail texture/movement and extends swell length. Set **DECAY** to minimum and MIX to max for a pure volume-swell sound.

HAZY - Simulate a floating haze sensation. Adjust parameters to shift between serene Morning Mist and overwhelming Sandstorm .

SHIMMER - A multi-algorithm dreamscape effect beyond octave harmonies. Adjust the **Texture** knob in real-time to morph sounds from orchestral lushness to choir-like textures, or twist beauty into nightmarish tones. Tip: Lower **BRIGHT** if high frequencies turn harsh.

TIDE - TIDE captures the dual nature of the ocean—serene one moment, tempestuous the next. Dial back the **Texture** parameter, let a dominant seventh chord ring out softly, and you'll hear the hush of distant waves and the breath of a salty breeze brushing the shore.
But the tide rises. Increase the **Texture** depth and dig into the strings—the calm gives way to chaos. The waves crash, the sea roars, and you're pulled into the overwhelming force of a sonic storm.

TEXTURE
Adjusts the texture of the reverb reflections. Turning the control to the right softens the early reflections and produces a smooth onset of the reverb.

SIZE
Adjusts the swell and reflection pattern of the reverb effect, creating the impression of differently sized spaces.

Footswitch
Control ON/OFF. Press&Hold to trigger **Freeze/Infinite or Ramp**.
*Refer to the ***Freeze & Infinite*** or ***Ramp*** section for details.*

The LED Button
Lit when active, pressed or in combination with other knobs to adjust various functions and Hidden Parameters.

Hidden Parameters

- **PreDelay**
  Adjusts the pre-delay inserted before the reverb . Higher values separate the dry signal's attack from the reverb tail for greater clarity and a larger-space impression; lower values blend the reverb into the dry signal.

- **RampATK**
  Controls the attack time of the Ramp modulation, determining how quickly the fade reaches the **Snap-Set.** A shorter attack time results in a quicker transition to the **Snap-Set**, while a longer attack time creates a smoother, more gradual fade.

- **RampRLS**
  Controls the release time of the Ramp modulation, determining how gradually the transition fades back to the **Panel-Set**. A shorter release time results in a quicker return to the **Panel-Set**, while a longer release time provides a more drawn-out, fluid return to the **Panel-Set**.

*For adjustments to Hidden Parameters, please refer to the ***Description of the LED Button** section.*

4. REAR PANEL I/O

9V DC

Connect to a 9V DC power supply with a center-negative polarity and a minimum current rating of 250mA.

Note: If the power supply is insufficient, the pedal may malfunction.

IN L (Mono)

1/4" mono (TS) unbalanced left input for mono setups.

IN R (Stereo)

1/4" mono (TS) unbalanced right input for mono setups.

OUT L (Mono)

1/4" mono (TS) unbalanced left output for mono setups.

OUT R (Stereo)

1/4" mono (TS) unbalanced right output for stereo setups.

Ctrl

1/4" stereo (TRS) balanced input for connecting an expression pedal or external footswitch.

*Note: Please refer to the ***External Control** section for information on how connection is recognized.*

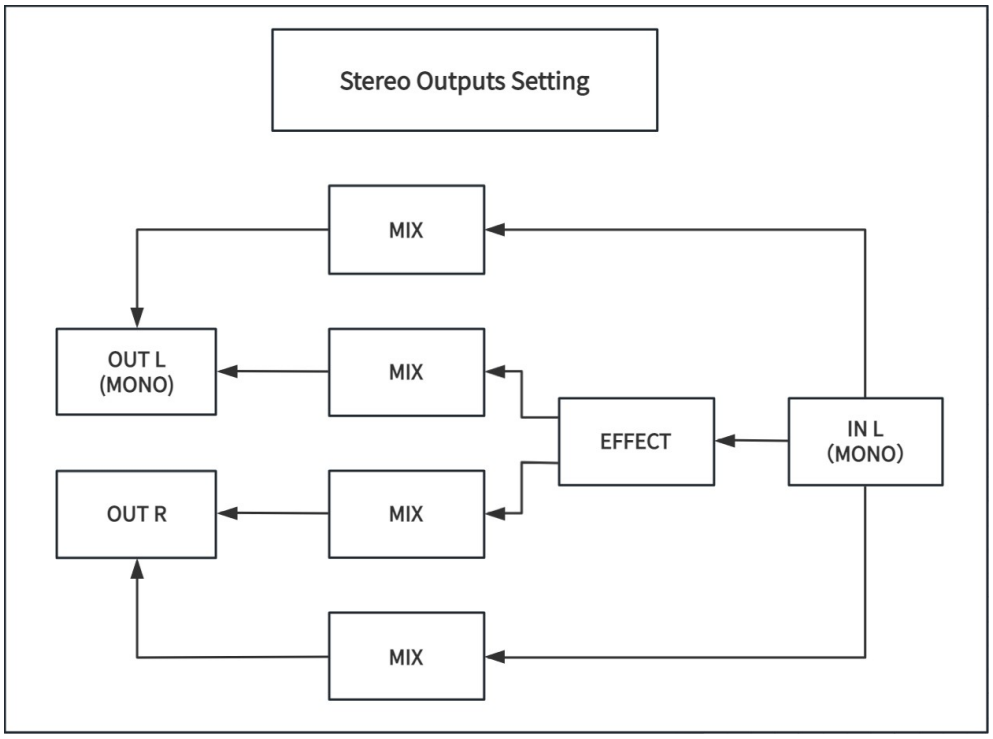
5. Signal Path

Configuring the In/Out Settings

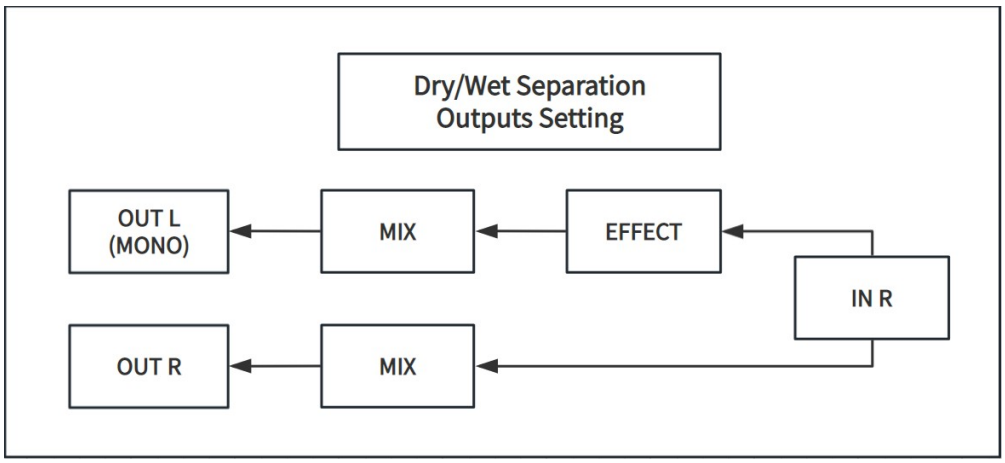
1-in, 1-out

Mono input with mono output. The dry and wet signals are mixed together in the mono output.

1-in, 2-out



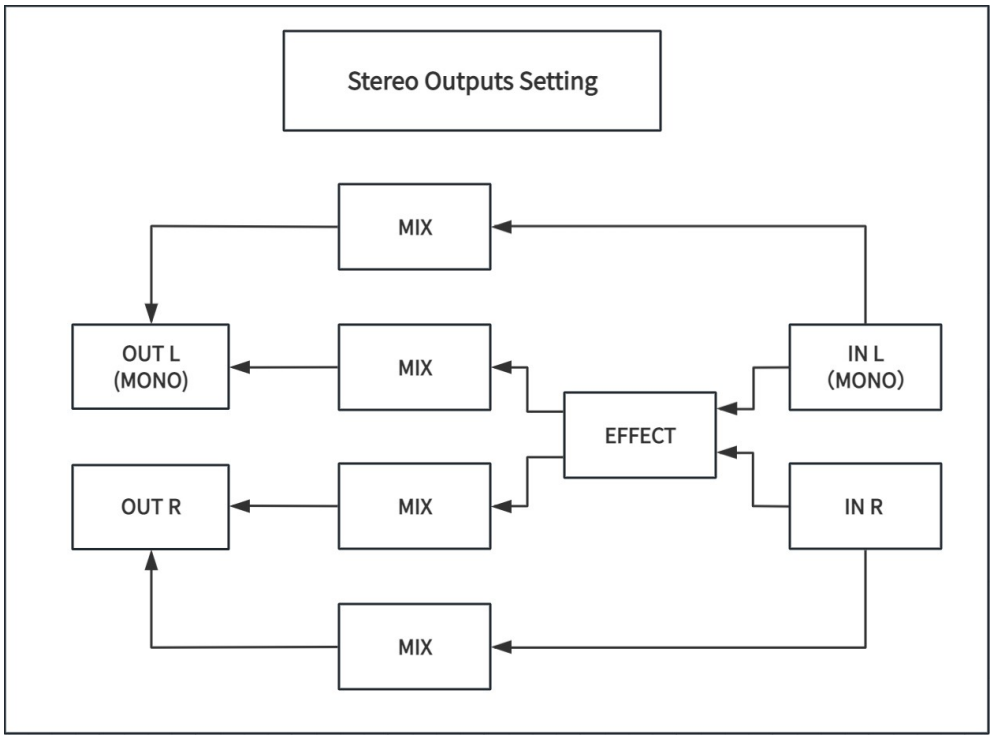
- For the **IN L**, the dry and the wet sounds are mixed when stereo output.



- **Dry/Wet Separation output** : For the **IN R, OUT R** carries the dry signal; **OUT L** carries the wet signal.

**Dry/Wet Separation outputs allows a guitar signal to be split into two distinct paths:* one carrying the unaffected (dry) sound, and the other carrying the processed (wet) effect signal. This configuration offers a range of creative and practical applications, particularly useful for live performances, studio setups, and advanced signal routing. **

2-in, 2-out



For the **IN L&R** , the dry signal and wet signal sounds are mixed when **OUT L&R**.

6. Description of the LED Button

The LED button is the heart of the Limbo.
You can determine the current operating status of the Limbo by observing the color of the LED button. The LED button can be pressed briefly or in combination with other knobs to adjust various functions or parameters.

Learning to interpret the LED colors and understanding the different ways the button can be pressed are essential for familiarizing yourself with the Limbo's operation.

What the LED Colors Mean

- **White** : Freeze/Infinity function active;
- **Blue** : Freeze/Infinity is actively being triggered.
- **Orange** : Ramp function active;
- **Violet** : Ramp is actively being triggered.

What the Button Can Adjust

- **Toggle the Freeze/Infinity or Ramp**
  Press once to switch between **Freeze/Infinity** and **Ramp**.

- **Save Snap-Set**
  Press&Hold to save the current parameter settings as **Snap-Set**.
  The LED blinks **violet** to confirm.

- **Adjustment of Hidden Parameters**
  Press&Hold while rotating the knob above the hidden parameters.
  Successful adjustment is indicated by the LED blinking **yellow**.

7. Freeze & Infinite

Press and hold the footswitch while the LED is **white. When the LED turns **blue**, you've entered **Freeze or Infinite**.**

This special feature allows your sound to continue indefinitely without decay, using advanced effects processing. It's ideal for crafting surreal ambiences, sustained sonic textures, or freezing a single moment in your playing for creative layering.

Freeze

The Freeze effect captures a brief snapshot of your sound—such as a chord, note, or ambient noise—and holds it in place, creating a static, sustained pad that you can play over in real time.

- **How It Works**

When you Press&Hold the footswitch, Limbo records a short audio snippet of what you're currently playing. It then loops or processes that snippet to generate a continuous, frozen tone.This held tone continues until you release the footswitch.

Infinite

The Infinite effect in a guitar effect pedal is an advanced version of a Freeze effect. It allows you to capture and sustain a layer of sound indefinitely, often with more layering, control, and ambient depth than a standard freeze.

- How It Works

When you Press&Hold the footswitch, Limbo will continuously record and process your live signal, blending it into a growing, infinite texture. The effect lasts until you release the footswitch.

*You can select between Freeze and Infinite modes using the **Power-Up Modes** settings, please refer to the ***Power-Up Modes**** *section.*

8. Ramp

Press and hold the footswitch while the LED is **orange. When the LED turns **violet**, you've entered **Ramp**.**

Ramp allows for smooth, dynamic transitions between two sets of parameters:

- **Panel-Set**–Your current front-panel parameter settings.
- **Snap-Set**–A saved set of parameters stored using the LED button.

This feature creates expressive, evolving fades that add depth, movement, and emotion to your sound. The speed and character of the transition are defined by two parameters:

RampATK (Attack Time):
Controls how quickly the effect fades from the **Panel-Set** to the **Snap-Set**.
- A shorter attack gives a fast, sharp transition.
- A longer attack creates a smoother, more gradual fade.

RampRLS (Release Time):
Controls how quickly the sound returns from the **Snap-Set** to the **Panel-Set**.
- A shorter release results in a quick recovery.
- A longer release provides a more drawn-out, fluid return.

Ramp Modes

Ramp supports two switching modes - **Momentary** and **Latched**—giving you flexibility to match your performance style.

Momentary Mode:
Press&Hold the footswitch to fade into the **Snap-Set** over **RampATK** time.Release the footswitch to return to the **Panel-Set** over **RampRLS** time.

Latched Mode:
Press once to transition to the **Snap-Set (RampATK)**, and press again to return to the **Panel-Set (RampRLS)**.

*To select between Momentary and Latched modes, see the ***Power-Up Modes** section.*

9. Power-Up Modes

How To enter Power-Up Modes:
Press & hold the footswitch while powering on the pedal. A flashing LED indicates successful entry.Once your settings are configured, press the footswitch again to exit **Power-Up Modes**.

In this mode, you can adjust the following settings:

Bypass & Trails Modes

Switch between modes by short-press **the LED button**.

- **True Bypass**
  The signal is routed directly through the pedal with no buffering or coloration. **Green LED flashes** to indicate True Bypass mode.
- **Buffered Bypass(Trails on)**
  The signal is routed through a buffer with **Analog Dry Through**, allowing delay trails to continue after the effect is bypassed.
- **Red LED flashes** to indicate Buffered Bypass mode.

Freeze/Infinite Switching

Select by rotating the **DECAY** knob.
- Turn fully left for **Freeze** (LED flashes **yellow** 3x).
- Turn fully right for **Infinite** (LED flashes **blue** 3x).

Ramp Lock

Select by rotating the **BRIGHT** knob.
- Turn fully left for **Momentary** (LED flashes **yellow** 3x).
- Turn fully right for **Latched** (LED flashes **blue** 3x).

- **Momentary:**
  Hold the footswitch to transition to **Snap-Set** over **RampATK** time. Release to return to the current set over **RampRLS** time.
- **Latched:**
  The first press transitions to **Snap-Set** over **RampATK** time. The second press returns to the current set over **RampRLS** time.

LED Brightness

Adjust by rotating the **SIZE** knob.
- Turn fully left for dimmest.
- Turn fully right for brightest.

10. External Control

Connection & Activation

When connecting an **external TS/TRS footswitch or expression pedal**, the LED indicator will flash **red**. Trigger the footswitch or pedal repeatedly during this state. Once the connection is successfully recognized, the Limbo will return to normal operation.

Note: If the External Control is not fully activated, it may result in limited functionality.

External Footswitch Compatibility

When connecting an external TS/TRS footswitch, there are two specific functional settings, depending on the color of the LED indicator:

- **LED White - The current footswitch-specific function is *Freeze/Infinite*.**
  - **TS/RS Footswitch** : Momentary triggers Ramp.
  - **TRS Footswitch:**
    - Tip Position: Momentary triggers Ramp.
    - Ring Position: Momentary triggers Freeze/Infinite .

- **LED Orange - The current footswitch-specific function is *Ramp***
  - **TS/RS Footswitch**: Momentary triggers Freeze/Infinite.
  - **TRS Footswitch:**
    - Tip Position: Momentary triggers Ramp.
    - Ring Position: Momentary triggers Freeze/Infinite.

Expression Pedal Compatibility

When an expression pedal is connected, it takes direct control over the **Ramp** by blending between the **Panel-Set** and **Snap-Set**. In this mode:

- The **Ramp ATK** and **Ramp RLS** parameters are disabled.
- **Ramp** cannot be triggered by Press&Hold the footswitch.
- The expression pedal locks Limbo into **LED White (Freeze/Infinite active**), and mode switching to **LED Orange (Ramp active) i**s disabled.

11. Specifications

Inputs	2 x 1/4"TS Instrument jacks	**Outputs**	2 x 1/4"TS Instrument jacks
Input Impedance	500k Ohm	**Output Impedance**	100 Ohm
A/D & D/A	24 Bit 44.1K Hz	**Max Input Level**	+10 dBu
Power Source	9V DC power supply required	**Current**	250mA
External Control	TS/TRS Momentary footswitch,or TRS expression pedal	**Bypass Mode**	Switchable: True Bypass, Buffered Bypass(Analog Dry-Through)
Hardware Interface	USB-C	**Dimensions**	54.7mm H x 124.8mm D x 69.2mm W(2.0"H x 4.9"D x 2.7"W)

Where Every Tone Blooms.